C

ThermoFisher
SCIENTIFIC

SAFETY DATA SHEET

Revision Date 22-May-2017 **Revision Number** 2

1. Identification

Product Name Cadmium

Cat No. : C3-500

Synonyms No information available

Recommended Use Laboratory chemicals.
Uses advised against Not for food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

Company
Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number
CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable solids	Category 2
Acute oral toxicity	Category 4
Acute dermal toxicity	Category 4
Acute Inhalation Toxicity - Dusts and Mists	Category 2
Germ Cell Mutagenicity	Category 2
Carcinogenicity	Category 1A
Reproductive Toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Respiratory system.	
Specific target organ toxicity - (repeated exposure)	Category 1
Target Organs - Kidney, Blood.	
Combustible dust	Yes

Label Elements

Signal Word
Danger

Hazard Statements
Flammable solid
May form combustible dust concentrations in air
Fatal if inhaled
Harmful if swallowed
Harmful in contact with skin

May cause respiratory irritation
Suspected of causing genetic defects
May cause cancer
Suspected of damaging fertility. Suspected of damaging the unborn child
Causes damage to organs through prolonged or repeated exposure



Precautionary Statements
Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/equipment
Response
IF exposed or concerned: Get medical attention/advice
Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a POISON CENTER or doctor/physician
Skin
IF ON SKIN: Wash with plenty of soap and water
Wash contaminated clothing before reuse
Call a POISON CENTER or doctor/physician if you feel unwell
Ingestion
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
Fire
Fight fire with normal precautions from a reasonable distance
Evacuate area
Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
Very toxic to aquatic life with long lasting effects
WARNING! This product contains a chemical known in the State of California to cause cancer, birth defects or other reproductive harm.

Component	CAS-No	Weight %
Cadmium	7440-43-9	100

General Advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
Inhalation	Move to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.
Ingestion	Do not induce vomiting. Call a physician or Poison Control Center immediately.
Most important symptoms/effects	None reasonably foreseeable. . Kidney disorders: May cause harm to the unborn child: Blood disorders
Notes to Physician	Treat symptomatically

Unsuitable Extinguishing Media	No information available
Flash Point	No information available
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical
Thermal decomposition can lead to release of irritating gases and vapors. Fine dust dispersed in air may ignite. Dust can form an explosive mixture in air. Pyrophoric properties of solids and liquids. Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous Combustion Products
Highly toxic fumes
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

Health	Flammability	Instability	Physical hazards
4	1	0	N/A

Personal Precautions	Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.
Environmental Precautions	Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.
Methods for Containment and Clean Up	Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

7. Handling and storage

Handling Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Avoid dust formation. Use only under a chemical fume hood. Do not breathe vapors/dust. Do not ingest.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Store under an inert atmosphere.

8. Exposure control / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Cadmium	TWA: 0.01 mg/m³ TWA: 0.002 mg/m³	Ceiling: 0.3 mg/m³ Ceiling: 0.6 mg/m³ (Vacated) STEL: 0.3 ppm TWA: 0.1 mg/m³ TWA: 0.2 mg/m³ TWA: 5 µg/m³	IDLH: 9 mg/m³	TWA: 0.01 mg/m³ TWA: 0.002 mg/m³

- American Conference of Governmental Industrial Hygienists
- Occupational Safety and Health Administration
The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection Long sleeved clothing.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feeding stuffs.

9. Physical and chemical properties

Physical State	Solid
Appearance	Silver
Odor	Odorless
Odor Threshold	No information available
pH	No information available
Melting Point/Range	321 °C / 609.8 °F
Boiling Point/Range	765 °C / 1409 °F @ 760 mmHg
Flash Point	No information available
Evaporation Rate	Not applicable
Flammability (solid,gas)	No information available

Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	Not applicable
Specific Gravity	8.64 @ 25°C
Solubility	Insoluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	Not applicable
Molecular Formula	Cd
Molecular Weight	112.40

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under recommended storage conditions. Moisture sensitive. Air sensitive.

Conditions to Avoid Incompatible products. Excess heat. Avoid dust formation. Exposure to air or moisture over prolonged periods.

Incompatible Materials Strong oxidizing agents, Strong acids, Sulfur oxides

Hazardous Decomposition Products Highly toxic fumes

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Cadmium	LD50 = 1140 mg/kg (Rat)	Not listed	LC50 = 25 mg/m³ (Rat) 30 min

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Cadmium	7440-43-9	Group 1	Known	A2	X	A2

IARC: (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2A - Probably Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans
NTP: (National Toxicity Program)
Known - Known Carcinogen
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
A1 - Known Human Carcinogen
A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen
ACGIH: (American Conference of Governmental Industrial Hygienists)

Mutagenic Effects	Possible risk of irreversible effects
Reproductive Effects	Possible risk of impaired fertility. May cause harm to the unborn child.
Developmental Effects	No information available.
Teratogenicity	No information available.
STOT - single exposure	Respiratory system
STOT - repeated exposure	Kidney Blood
Aspiration hazard	No information available
Symptoms / effects,both acute and delayed	Kidney disorders: May cause harm to the unborn child: Blood disorders
Endocrine Disruptor Information	No information available
Other Adverse Effects	The toxicological properties have not been fully investigated.

12 Ecological Information



Ecotoxicity
The product contains following substances which are hazardous for the environment. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Cadmium	Not listed	LC50: 0.0004 - 0.003 mg/L, 96h (Pimephales promelas) LC50: = 0.016 mg/L, 96h (Oryzias latipes) LC50: = 21.1 mg/L, 96h flow-through (Lepomis macrochirus) LC50: = 0.24 mg/L, 96h static (Cyprinus carpio) LC50: = 4.26 mg/L, 96h semi-static (Cyprinus carpio) LC50: = 0.002 mg/L, 96h (Cyprinus carpio) LC50: = 0.006 mg/L, 96h static (Oncorhynchus mykiss) LC50: = 0.003 mg/L, 96h flow-through (Oncorhynchus mykiss)	Not listed	EC50: = 0.0244 mg/L, 48h Static (Daphnia magna)

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available.

Mobility No information available.

13. Disposal Considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport Information

DOT

UN-No	UN2930
Proper Shipping Name	TOXIC SOLIDS, FLAMMABLE, ORGANIC, N.O.S.
Proper technical name	Cadmium
Hazard Class	6.1
Subsidiary Hazard Class	4.1
Packing Group	I

TDG

UN-No	UN2930
Proper Shipping Name	TOXIC SOLID, FLAMMABLE, ORGANIC, N.O.S.
Hazard Class	6.1
Subsidiary Hazard Class	4.1
Packing Group	I

IATA

UN-No	UN2930
Proper Shipping Name	TOXIC SOLID, FLAMMABLE, ORGANIC, N.O.S.
Hazard Class	6.1
Subsidiary Hazard Class	4.1
Packing Group	I

IMDG/IMO

UN-No	UN2930
Proper Shipping Name	TOXIC SOLID, FLAMMABLE, ORGANIC, N.O.S.
Hazard Class	6.1
Subsidiary Hazard Class	4.1
Packing Group	I

15. Regulatory Information

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Cadmium	X	X	-	231-152-8	-		X	-	X	X	X

Legend:
X - Listed
E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
P - Indicates a commenced PMN substance
R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).
Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Cadmium	7440-43-9	100	0.1

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Cadmium	-	-	X	X

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Cadmium	X		-

OSHA Occupational Safety and Health Administration
Not applicable

Component	Specifically Regulated Chemicals	Highly Hazardous Chemicals
Cadmium	5 µg/m³ TWA 2.5 µg/m³ Action Level	-

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Cadmium	10 lb	-

California Proposition 65 This product contains the following proposition 65 chemicals

Component	CAS-No	California Prop. 65	Prop 65 NSRL	Category
Cadmium	7440-43-9	Carcinogen Developmental Male Reproductive	0.05 µg/day	Developmental Carcinogen

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Cadmium	X	X	X	X	X

U.S. Department of Transportation

Reportable Quantity (RQ):	Y
DOT Marine Pollutant	N
DOT Severe Marine Pollutant	N

U.S. Department of Homeland Security
This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Prepared By	Regulatory Affairs Thermo Fisher Scientific Email: EMSDS.RA@thermofisher.com
Revision Date	22-May-2017
Print Date	22-May-2017
Revision Summary	This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

FLINN SCIENTIFIC, INC.
Safety Data Sheet (SDS)

SDS #: 195.00
Revision Date: March 13, 2014

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Calcium Carbonate

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261
CHEMTREC Emergency Phone Number: (800) 424-9300 **Signal Word** N/A

Pictograms

SECTION 2 — HAZARDS IDENTIFICATION

This chemical is considered nonhazardous according to GHS classifications for the Hazard Communication Standard. Treat all laboratory chemicals with caution.

Although this material is considered to be nonhazardous, unpredictable reactions among chemicals are always possible. Prudent laboratory practices should be observed.

SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Calcium carbonate	471-34-1	$CaCO_3$	100.09	
Synonyms: Chalk; Dolomite; Limestone				

SECTION 4 — FIRST AID MEASURES

Call a POISON CENTER or physician if you feel unwell.
If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.
If on skin: Wash with plenty of water.
If swallowed: Rinse mouth. Call a POISON CENTER or physician if you feel unwell.

SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable, noncombustible solid.
When heated to decomposition, may emit toxic fumes.
In case of fire: Use a tri-class dry chemical fire extinguisher.

NFPA CODE
None established

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Sweep up the spill, place in a sealed bag or container, and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

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SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Inorganic #4. Store with hydroxides, oxides, silicates and carbonates.
Store in a cool, dry place.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection. Wash hands thoroughly after handling.
Exposure Guidelines: PEL 15 mg/m^3 (as total dust) (OSHA)

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

White powder. Odorless.
Soluble: Acids but evolves carbon dioxide. Slightly in water.

Melting point: 825 °C (decomposes)
Specific gravity: 2.7

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with strong oxidizers, acids, magnesium, and aluminum.
Shelf life: Excellent, if stored properly.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Irritant.
Chronic effects: N.A.
Target organs: N.A.

ORL-RAT LD_{50}: 6450 mg/kg
IHL-RAT LC_{50}: N.A.
SKN-RBT LD_{50}: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply before proceeding.
Flinn Suggested Disposal Method #26a is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Not regulated. Hazard class: N/A. UN number: N/A.

N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

TSCA-listed, EINECS-listed (207-439-9).

SECTION 16 — OTHER INFORMATION

This Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific, Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

Consult your copy of the *Flinn Science Catalog/Reference Manual* for additional information about laboratory chemicals.

Revision Date: March 13, 2014

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Section 1 Chemical Product and Company Information

ward's science
5100 West Henrietta Rd
PO Box 92912
Rochester, NY 14692-9012
Tel: (800) 962-2660

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300
For laboratory use only.
Not for drug, food or household use.

Product	**CALCIUM CARBONATE**
Synonyms	Marble Chips / Boiling Chips / Marble Rocks / Limestone

Section 2 Hazards Identification

This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.

Signal word: WARNING
Pictograms: GHS08
Target organs: None known



GHS Classification:
*STOT-RE (Category 2)

GHS Label information: Hazard statement:
*H373: May cause damage to organs (*lungs*) through prolonged or repeated exposure (*inhalation*).

** Respirable dust particles containing crystalline silica may be generated by crushing. There are no known hazards associated with this material when used as recommended.*

Precautionary statement:
P260: Do not breathe dust.
P314: Get medical advice/attention if you feel unwell.
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65 - WARNING! This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Calcium carbonate	1317-65-3	≥ 99%	215-279-6
Quartz	14808-60-7	0.1-1.0%	238-878-4

Section 4 First Aid Measures

INGESTION: Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: PROLONGED INHALATION OF PARTICULATE DUST MAY BE HARMFUL. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: MAY CAUSE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY CAUSE ABRASIONS. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Product will not burn or support fire. Use any media suitable for extinguishing supporting fire

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: Limestone reacts with acids to release carbon dioxide.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area.

Section 8 Exposure Controls / Personal Protection

Exposure Limits:

Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Particulates not otherwise classified	TWA: 5 mg/m^3 respirable fraction	None established	None established

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Appearance: Solid. White stone chips.
Odor: No odor.
Odor threshold: Data not available.
pH: Data not available.
Melting / Freezing point: Data not available
Boiling point: Data not available
Flash point: Not flammable

Evaporation rate (= 1): Not applicable
Flammability (solid/gas): Data not available.
Explosion limits: Lower / Upper: Not flammable
Vapor pressure (mm Hg): Data not available
Vapor density (Air = 1): Data not available
Relative density (Specific gravity): 2.85
Solubility(ies): 0.001% @ 0°C in water

Partition coefficient: Not applicable
Auto-ignition temperature: Not applicable
Decomposition temperature: 826°C (1520°F)
Viscosity: Data not available.
Molecular formula: $CaCO_3$
Molecular weight: 100.09

Section 10 Stability & Reactivity

Chemical stability: Stable
Conditions to avoid: Avoid contact with acids.
Hazardous polymerization: Will not occur.

Incompatible materials: Reacts with acids to liberate carbon dioxide.

Hazardous decomposition products: Carbon dioxide.

Section 11 Toxicological Information

Acute toxicity: Data not available
Skin corrosion/irritation: Data not available
Serious eye damage/irritation: Data not available
Respiratory or skin sensitization: Data not available
Germ cell mutagenicity: Data not available
Carcinogenity: Data not available
NTP: Known to be a human carcinogen (respirable). [crystalline silica]*
IARC classified: Group 1: Carcinogenic to humans. [crystalline silica]*
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity: Data not available
STOT-single exposure: Data not available
STOT-repeated exposure: Inhalation - May cause damage to organs through prolonged or repeated exposure. [crystalline silica]*
Aspiration hazard: Data not available
Potential health effects:
Inhalation: Dust may cause congestion and irritation in nasal and respiratory passages.
Ingestion: Ingestion may cause gastrointestinal irritation and blockage.
Skin: May cause abrasions.
Eyes: May cause mild to severe irritation by abrasion with dust or chips.
Signs and symptoms of exposure: Prolonged inhalation of particulate dust, may result in silicosis, a disabling pulmonary fibrosis characterized by fibrotic changes and miliary nodules in the lungs, a dry cough, shortness of breath, emphysema, decreased chest expansion, and increased susceptibility to tuberculosis.
Additional information: RTECS #: FF9335000
** Respirable dust particles containing crystalline silica may be generated by crushing. There are no known hazards associated with this material when used as recommended.*

Section 12 Ecological Information

Toxicity to fish: No data available
Toxicity to daphnia and other aquatic invertebrates: No data available
Toxicity to algae: No data available
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
PBT and vPvB assessment: No data available
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information

UN/NA number: Not applicable
Shipping name: Not Regulated
Hazard class: Not applicable
Packing group: Not applicable
Reportable Quantity: No
Marine pollutant: No
Exceptions: Not applicable
2012 ERG Guide # Not applicable

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	WHMIS Classification
Calcium carbonate	Listed	Not listed	Not listed	Not listed	Listed	(T) D2A

Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Revision Date: January 9, 2014 **Supercedes:** December 10, 2012

FLINN SCIENTIFIC, INC.
Safety Data Sheet (SDS)

SDS #: 196.00
Revision Date: March 21, 2014

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Calcium Chloride

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261
CHEMTREC Emergency Phone Number: (800) 424-9300

Signal Word WARNING

Pictograms



SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Acute toxicity, oral (Category 4). Harmful if swallowed (H302). Do not eat, drink or smoke when using this product (P270).

Hazard class: Serious eye damage or irritation (Category 2A). Causes serious eye irritation (H319).

SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Calcium chloride, anhydrous	10043-52-4	$CaCl_2$	110.98	

SECTION 4 — FIRST AID MEASURES

Call a POISON CENTER or physician if you feel unwell.
If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338). **If eye irritation persists:** Get medical advice or attention (P337+P313).
If on skin: Rinse cautiously with water for several minutes (P351).
If swallowed: Rinse mouth. Contact a POISON CENTER or physician if you feel unwell.

SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable, noncombustible solid.
When heated to decomposition, may emit toxic fumes.
In case of fire: Use a tri-class dry chemical fire extinguisher.

NFPA CODE
None established

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Sweep up the spill, place in a sealed bag or container, and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

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SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Inorganic #2. Store with acetates, halides, sulfates, sulfites, thiosulfates and phosphates. Store in a cool, dry place. Hygroscopic. Store in Flinn Chem-Saf™ bag.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling (P264).

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

White powder, crystals, or flakes. Odorless.
Soluble: Water and alcohol. Liberates heat in water.

Boiling point: 1670 °C
Melting point: 772 °C
Specific gravity: 2.15

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with strong acids.
Shelf life: Fair to poor, hygroscopic. See Section 7 for further information.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Irritant.
Chronic effects: N.A.
Target organs: N.A.

ORL-RAT LD_{50}: 1000 mg/kg
IHL-RAT LC_{50}: N.A.
SKN-RBT LD_{50}: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply before proceeding.
Flinn Suggested Disposal Method #26a is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Not regulated. Hazard class: N/A. UN number: N/A.

N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

TSCA-listed, EINECS-listed (233-140-8).

SECTION 16 — OTHER INFORMATION

This Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific, Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

Consult your copy of the *Flinn Science Catalog/Reference Manual* for additional information about laboratory chemicals.

Revision Date: March 21, 2014

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SAFETY DATA SHEET **SDS No.:** CC0075 **GENERAL STORAGE CODE GREEN**

Section 1 Chemical Product and Company Information

ward's science
5100 West Henrietta Rd
PO Box 92912
Rochester, NY 14692-9012
Tel: (800) 962-2660

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300
For laboratory use only.
Not for drug, food or household use.

Product	**CALCIUM CHLORIDE, ANHYDROUS**
Synonyms	N/A

Section 2 Hazards Identification

Signal word: WARNING
Pictograms: GHS07
Target organs: None known



GHS Classification:
Eye irritation (Category 2A)

GHS Label information: Hazard statement:
H319: Causes serious eye irritation.

Precautionary statement:
P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical attention.

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Calcium chloride	10043-52-4	>91.0%	233-140-8
Water	7732-18-5	4.5%	231-791-2
Potassium chloride	7447-40-7	2.5%	231-211-8
Sodium chloride	7647-14-5	1.5%	231-598-3
Strontium chloride	10476-85-4	0-1%	233-971-6

Section 4 First Aid Measures

INGESTION: MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: CAUSES SERIOUS EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY CAUSE IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Heat is generated when product mixes with water.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Hygroscopic material. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 Exposure Controls / Personal Protection

Exposure Limits:

Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Particulates not otherwise classified	None established	TWA: 15 mg/m^3 total dust	None established

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Appearance: Solid. White pellets.
Odor: No odor.
Odor threshold: Data not available.
pH: Data not available.
Melting / Freezing point: 772°C (1422°F)
Boiling point: Data not available
Flash point: Not applicable

Evaporation rate (= 1): Not applicable
Flammability (solid/gas): Data not available.
Explosion limits: Lower / Upper: Not applicable
Vapor pressure (mm Hg): Negligible
Vapor density (Air = 1): Data not available
Relative density (Specific gravity): Data not available
Solubility(ies): Soluble in water.

Partition coefficient: Not applicable
Auto-ignition temperature: Not applicable
Decomposition temperature: Data not available.
Viscosity: Data not available.
Molecular formula: $CaCl_2$
Molecular weight: 110.99

Section 10 Stability & Reactivity

Chemical stability: Stable
Hazardous polymerization: Will not occur.
Conditions to avoid: Hygroscopic material. Avoid moisture.

Incompatible materials: Heat is generated when mixed with water. Spattering and boiling can occur. Avoid contact with sulfuric acid. Corrosive when wet. Flammable hydrogen may be generated from contact with metals such as zinc and sodium.

Hazardous decomposition products: None known.

Section 11 Toxicological Information

Acute toxicity: Oral-rat LD50: 2100 mg/kg ; Dermal-rabbit LD50: >5000 mg/kg
Skin corrosion/irritation: Data not available
Serious eye damage/irritation: Data not available
Respiratory or skin sensitization: Data not available
Germ cell mutagenicity: Data not available
Carcinogenity: Data not available
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity: Data not available
STOT-single exposure: Data not available
STOT-repeated exposure: Data not available
Aspiration hazard: Data not available
Potential health effects:
Inhalation: Dust may cause irritation to the upper respiratory tract (nose and throat).
Ingestion: Low toxicity if swallowed. However, large amounts may result in gastrointestinal irritation or ulceration.
Skin: Contact with skin may cause irritation and/or defatting on prolonged contact.
Eyes: Contact with eyes may cause severe irritation and/or corneal injury.
Signs and symptoms of exposure: See Potential health effects above.
Additional information: RTECS #: EV9810000

Section 12 Ecological Information

Toxicity to fish: Lepomis macrochirus (bluegill) LC50: 8,350-10,650 mg/L
Toxicity to daphnia and other aquatic invertebrates: Daphnia magna (water flea), LC50: 759-3,005 mg/L
Toxicity to algae: No data available
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
PBT and vPvB assessment: No data available
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information

UN/NA number: Not applicable
Shipping name: Not Regulated
Hazard class: Not applicable
Packing group: Not applicable
Reportable Quantity: No
Marine pollutant: No
Exceptions: Not applicable
2012 ERG Guide # Not applicable

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	WHMIS Classification
Calcium chloride	Listed	Not listed	Not listed	Listed	Not listed	D2B

Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Revision Date: October 11, 2013 **Supercedes:** December 1, 2011

Safety Data Sheet

Calcium Chloride, Anhydrous

CAROLINA®
www.carolina.com

Section 1 Product Description

Product Name:	Calcium Chloride, Anhydrous
Recommended Use:	Science education applications
Synonyms:	Calcium Chloride, Granular, Pellets, Lumps
Distributor:	Carolina Biological Supply Company 2700 York Road, Burlington, NC 27215 1-800-227-1150
Chemical Information:	800-227-1150 (8am-5pm (ET) M-F)
Chemtrec:	800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

WARNING



Harmful if swallowed. Causes serious eye irritation.

GHS Classification:
Serious Eye Damage/Eye Irritation Category 2A, Acute Toxicity - Oral Category 4

Acute Toxicity Dermal Contains	100 % of the mixture consists of ingredient(s) of unknown toxicity
Acute Toxicity Inhalation Gas Contains	100 % of the mixture consists of ingredient(s) of unknown toxicity
Acute Toxicity Inhalation Vapor Contains	100 % of the mixture consists of ingredient(s) of unknown toxicity
Acute Toxicity Inhalation Dust/Mist Contains	100 % of the mixture consists of ingredient(s) of unknown toxicity

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%
Calcium Chloride, Anhydrous	10043-52-4	100

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation:	In case of accident by inhalation: remove casualty to fresh air and keep at rest.
Eyes:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact:	After contact with skin, wash immediately with plenty of water.
Ingestion:	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Section 5 Firefighting Procedures

Extinguishing Media:	Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.
Fire Fighting Methods and Protection:	Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Fire and/or Explosion Hazards: Fire or heat may produce products of Calcium Oxide and Hydrochloric Acid and/or Chlorine gas.

Hazardous Combustion Products: Hydrogen chloride, Calcium Oxides

Section 6 Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Ventilate the contaminated area. Avoid the generation of dusts during clean-up.
Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Contain the discharged material. Do not allow the spilled product to enter public drainage system or open waterways.

Section 7 Handling and Storage

Handling: Wash thoroughly after handling. Do no eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Leather clothing and shoes will be damaged. Keep away from oxidizing materials and strong acids. Moisture; Product is hygroscopic. Avoid contact with skin and eyes. After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

Storage: Keep container tightly closed in a cool, well-ventilated place.

Storage Code: Green - general chemical storage

Section 8 Protection Information

	ACGIH		OSHA PEL	
Chemical Name	(TWA)	(STEL)	(TWA)	(STEL)
No data available	N/A	N/A	N/A	N/A

Control Parameters

Engineering Measures: No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.

Personal Protective Equipment (PPE): Lab coat, apron, eye wash, safety shower.

Respiratory Protection: No respiratory protection required under normal conditions of use.

Eye Protection: Wear chemical splash goggles when handling this product. Have an eye wash station available.

Skin Protection: Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves: Nitrile

Section 9 Physical Data

Formula: CaCl2
Molecular Weight: 110.99
Appearance: Colorless to pale yellow Solid
Odor: None
Odor Threshold: No data available
pH: 8.0 - 9.0, conc: 35 % (solution)
Melting Point: Not established 772 C
Boiling Point: 815 C
Flash Point: No data available
Flammable Limits in Air: N/A

Vapor Pressure: <0.005
Evaporation Rate (BuAc=1): N/A
Vapor Density (Air=1): N/A
Specific Gravity: 2.2
Solubility in Water: Soluble
Log Pow (calculated): No data available
Autoignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: No data available
Percent Volatile by Volume: Negligible

Section 10 Reactivity Data

Reactivity:	No data available
Chemical Stability:	Stable under normal conditions.
Conditions to Avoid:	Exposure to air. Keep lid tightly closed when not in use.
Incompatible Materials:	Bromine Trifluoride, Methyl Vinyl Ether, Strong acids, Zinc
Hazardous Decomposition Products:	Calcium Oxides, Hydrogen chloride
Hazardous Polymerization:	Will not occur

Section 11 Toxicity Data

Routes of Entry	Inhalation, ingestion, eye or skin contact.
Symptoms (Acute):	Respiratory disorders
Delayed Effects:	No data available

Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Calcium Chloride, Anhydrous	10043-52-4	Oral LD50 Rabbit 1384 mg/kg	Not determined	Not determined

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
No data available	10043-52-4	Not listed	Not listed	Not listed

Chronic Effects:

Mutagenicity:	No evidence of a mutagenic effect.
Teratogenicity:	No evidence of a teratogenic effect (birth defect).
Sensitization:	No evidence of a sensitization effect.
Reproductive:	No evidence of negative reproductive effects.
Target Organ Effects:	
Acute:	See Section 2
Chronic:	Tumorigenic data cited., Not listed as a carcinogen by IARC, NTP or OSHA.

Section 12 Ecological Data

Overview:	Slight ecological hazard. In high concentrations, this product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	No data
Other Adverse Effects:	No data

Chemical Name	CAS Number	Eco Toxicity
Calcium Chloride, Anhydrous	10043-52-4	96 HR LC50 LEPOMIS MACROCHIRUS 10650 MG/L [STATIC] 48 HR LC50 DAPHNIA MAGNA 2400 MG/L

Section 13 Disposal Information

Disposal Methods:	Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s):	Not Determined

Section 14 Transport Information

Ground - DOT Proper Shipping Name:
Not a DOT controlled material

Air - IATA Proper Shipping Name:
Not regulated for air transport by IATA.

Section 15 Regulatory Information

TSCA Status:	All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
No data available	10043-52-4	No	No	No	No	No

Section 16 Additional Information

Revised: 09/03/2014 **Replaces: 09/03/2014** **Printed: 09-11-2014**

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstract Service Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation
IARC	International Agency for Research on Cancer
N/A	Not Available
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
IDLH	Immediately dangerous to life and health

FLINN SCIENTIFIC, INC.
Safety Data Sheet (SDS)

SDS #: 199.00
Revision Date: March 24, 2014

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Calcium Hydroxide

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261
CHEMTREC Emergency Phone Number: (800) 424-9300

Signal Word **WARNING**

Pictograms



SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Skin and serious eye damage, corrosion or irritation (Category 2, 2A). Causes skin and serious eye irritation (H315+H319).

Hazard class: Specific target organ toxicity, single exposure; respiratory tract irritation (Category 3). May cause respiratory irritation (H335). Avoid breathing dust or fumes (P261).

SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Calcium hydroxide	1305-62-0	$Ca(OH)_2$	74.10	
Synonyms: Slaked lime; Calcium hydrate				

SECTION 4 — FIRST AID MEASURES

Call a POISON CENTER or physician if you feel unwell (P312).
If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing (P304+P340).
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338). **If eye irritation persists:** Get medical advice or attention (P337+P313).
If on skin: Wash with plenty of water (P302+P352). **If skin irritation occurs:** Get medical advice or attention (P332+P313).
If swallowed: Rinse mouth. Call a POISON CENTER or physician if you feel unwell.

SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable, noncombustible solid.
When heated to decomposition, may emit toxic fumes.
In case of fire: Use a tri-class dry chemical fire extinguisher.

NFPA CODE
None established

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Sweep up the spill, place in a sealed bag or container, and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

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SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Inorganic #4. Store with hydroxides, oxides, silicates and carbonates.
Store in a cool, dry place. Store in a Flinn Chem-Saf™ bag.
Keep container tightly closed (P233). Use only in a hood or well-ventilated area (P271).

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling (P264). Use only in a hood or well-ventilated area (P271).
Exposure guidelines: PEL 15 mg/m^3 (as total dust) (OSHA); TLV 5 mg/m^3 (ACGIH)

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

White powder. Odorless.
Soluble: Acids and some organic liquids. Slightly in water.

Melting point: Loses water at 580 °C
pH of water solution (25%) 12.4.
Specific gravity: 2.34

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with strong acids, maleic anhydride, and nitro compounds.
Shelf life: Fair to poor. Absorbs carbon dioxide from air. See Section 7 for further information.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Corrosive.
Chronic effects: N.A.
Target organs: N.A.

ORL-RAT LD_{50}: 7340 mg/kg
IHL-RAT LC_{50}: N.A.
SKN-RBT LD_{50}: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply before proceeding.
Flinn Suggested Disposal Method #10 is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Not regulated. Hazard class: N/A. UN number: N/A.

N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

TSCA-listed, EINECS-listed (215-137-3), RCRA code D002.

SECTION 16 — OTHER INFORMATION

This Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific, Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

Consult your copy of the *Flinn Science Catalog/Reference Manual* for additional information about laboratory chemicals.

Revision Date: March 24, 2014

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Section 1 Chemical Product and Company Information

ward's science
5100 West Henrietta Rd
PO Box 92912
Rochester, NY 14692-9012
Tel. (800) 962-2660

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300
For laboratory use only.
Not for drug, food or household use.

Product	**CALCIUM METAL**
Synonyms	Calcium

Section 2 Hazards Identification

Signal word: DANGER
Pictograms: GHS02
Target organs: None known



GHS Classification:
Water reactive (Category 2)

GHS Label information: Hazard statement:
H261: In contact with water releases flammable gas.

Precautionary statement:
P223: Do not allow contact with water.
P231+P232: Handle under inert gas. Protect from moisture.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P335+P334: Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.
P370+P378: In case of fire: Use Class D extinguisher or smother with dry sand, dry clay, dry ground limestone or graphite to extinguish.
P402+P404: Store in a dry place. Store in a closed container.
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Calcium	7440-70-2	98%	231-179-5

Section 4 First Aid Measures

INGESTION: MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: MAY BE HARMFUL IF INHALED. MAY CAUSE RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: MAY CAUSE EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY BE HARMFUL IF ABSORBED THROUGH SKIN. MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: DO NOT use water, foam or halogenated extinguishing agents or CO_2. Use Class D extinguisher or smother with dry sand, dry clay, dry ground limestone or graphite to extinguish.
Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.
Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Calcium reacts with water and acids to release hydrogen. Heat of reaction may ignite evolved hydrogen. Avoid direct viewing of calcium fires as eye injury may result, use fire glasses. Powders form explosive mixtures with air which may be ignited by a spark.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Recover for reuse if not contaminated. Remove all sources of ignition. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from ignition sources. Avoid exposure to water and moisture.

Section 8 Exposure Controls / Personal Protection

Exposure Limits:

Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Calcium	Not established	Not established	Not established

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Appearance: Solid, silvery-gray metal.
Odor: No odor.
Odor threshold: Data not available.
pH: Data not available.
Melting / Freezing point: 842°C (1542°F)
Boiling point: 1440°C (4755°F)
Flash point: Data not available

Evaporation rate (= 1): Data not available
Flammability (solid/gas): Data not available.
Explosion limits: Lower / Upper: Data not available
Vapor pressure (mm Hg): 10 mm Hg @ 983°C
Vapor density (Air = 1): Data not available
Relative density (Specific gravity): 1.54
Solubility(ies): Reacts violently with water.

Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: Data not available.
Viscosity: Data not available.
Molecular formula: Ca
Molecular weight: 40.08

Section 10 Stability & Reactivity

Chemical stability: Stable
Hazardous polymerization: Will not occur.
Conditions to avoid: Excessive temperatures, heat, sparks, open flame and other sources of ignition. Avoid contact with air and water. Avoid dispersion of dust in air.
Incompatible materials: Acids, halogens, alkali, metals, hydroxides, carbonates. Calcium will react with water and acids to release hydrogen.
Hazardous decomposition products: Hydrogen, calcium hydroxide, calcium oxide.

Section 11 Toxicological Information

Acute toxicity: Data not available
Skin corrosion/irritation: Data not available
Serious eye damage/irritation: Data not available
Respiratory or skin sensitization: Data not available
Germ cell mutagenicity: Data not available
Carcinogenity: Data not available
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity: Data not available
STOT-single exposure: Data not available
STOT-repeated exposure: Data not available
Aspiration hazard: Data not available
Potential health effects:
Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion: May be harmful if swallowed.
Skin: May be harmful if absorbed through skin. May cause skin irritation.
Eyes: May cause eye irritation.
Signs and symptoms of exposure: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Cough, shortness of breath, headache, nausea. Exercise appropriate procedures to minimize potential hazards.
Additional information: RTECS #: EV8040000

Section 12 Ecological Information

Toxicity to fish: No data available
Toxicity to daphnia and other aquatic invertebrates: No data available
Toxicity to algae: No data available
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
PBT and vPvB assessment: No data available
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number: UN1401 **Shipping name:** Calcium
Hazard class: 4.3 **Packing group:** II **Reportable Quantity:** 10 lbs (0.37 kg) **Marine pollutant:** No
Exceptions: Limited quantity equal to or less than (0.5 Kg) 1.1 lb. **2012 ERG Guide #** 138

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	WHMIS Classification
Calcium	Listed	10 lbs (0.37 kg)	D001 ; D003	Listed	Not listed	B6 ; E

Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Revision Date: June 10, 2013 **Supercedes:** December 2, 2011

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CHEMTREC 24 Hour Emergency
Phone Number (800) 424-9300
For laboratory use only.
Not for drug, food or household use.

Product	**CALCIUM NITRATE, TETRAHYDRATE**
Synonyms	Nitric Acid, Calcium(II) Salt / Calcium Nitrate, 4-Hydrate

Section 2 Hazards Identification

Signal word: DANGER
Pictograms: GHS03 / GHS05 / GHS07
Target organs: Blood



GHS Classification:
Oxidizing solid (Category 3)
Acute toxicity, oral (Category 4)
Eye damage (Category 1)

GHS Label information: Hazard statement:
H272: May intensify fire; oxidizer.
H302: Harmful if swallowed.
H318: Causes serious eye damage.

Precautionary statement:
P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220: Keep away from clothing/incompatible/combustible materials.
P221: Take any precaution to avoid mixing with combustibles and incompatible materials.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P370+P378: In case of fire: Use WATER ONLY to extinguish.
P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P330: Rinse mouth.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER or doctor.
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Calcium nitrate	13477-34-4	100%	233-332-1

Section 4 First Aid Measures

INGESTION: HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: MAY BE HARMFUL IF INHALED. MAY CAUSE RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: CAUSES SERIOUS EYE DAMAGE. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY BE HARMFUL IF ABSORBED THROUGH SKIN. MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Use water only. Do not use dry chemical or foams. CO_2 or Halon® may provide limited control.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Although not flammable, substance is a strong oxidizer which releases oxygen on heating, increasing the burn rate of any material with a flare-burning effect. It may cause re-ignition after a fire is extinguished.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Recover for reuse if not contaminated. Remove all sources of ignition. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

(2012 EMERGENCY RESPONSE GUIDEBOOK, (PHH50-ERG2012), GUIDE # 140)

Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from ignition sources.

Section 8 Exposure Controls / Personal Protection

Exposure Limits:

Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Calcium nitrate	Not established	Not established	Not established

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Appearance: Solid. White prills
Odor: No odor
Odor threshold: Data not available
pH: Data not available
Melting / Freezing point: 45°C (113°F)
Boiling point: Decomposes
Flash point: Data not available

Evaporation rate (= 1): Data not available
Flammability (solid/gas): Data not available
Explosion limits: Lower / Upper: Data not available
Vapor pressure (mm Hg): Negligible
Vapor density (Air = 1): 8.17
Relative density (Specific gravity): 2.36
Solubility(ies): 121 g/100 ml water

Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: Data not available
Viscosity: Data not available
Molecular formula: $Ca(NO_3)_2 \cdot 4H_2O$
Molecular weight: 236.15

Section 10 Stability & Reactivity

Chemical stability: Stable
Hazardous polymerization: Will not occur.
Conditions to avoid: Keep away from combustible materials.
Incompatible materials: Ammonia, hydrozine and other reducing agents.
Hazardous decomposition products: Nitrogen oxides.

Section 11 Toxicological Information

Acute toxicity: Oral-rat LD50: 3900 mg/kg
Skin corrosion/irritation: Data not available
Serious eye damage/irritation: Eyes-rabbit - 500 mg/24 hour -Severe
Respiratory or skin sensitization: Data not available
Germ cell mutagenicity: Data not available
Carcinogenity: Data not available
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.
Reproductive toxicity: Data not available
STOT-single exposure: Data not available
STOT-repeated exposure: Data not available
Aspiration hazard: Data not available
Potential health effects:
Inhalation: Inhalation may cause cough and sore throat.
Ingestion: Ingestion may cause abdominal pain, blue lips, fingernails and skin, confusion, convulsions, dizziness, headache, nausea, unconsciousness.
Skin: Contact with skin may cause irritation and/or defatting on prolonged contact.
Eyes: Contact with eyes may cause redness and pain.
Signs and symptoms of exposure: Ingestion could cause effects on the blood. This may result in formation of methaemoglobin. The effects may be delayed. Medical observation is indicated. Exercise appropriate procedures to minimize potential hazards.
Additional information: RTECS #: Data not available

Section 12 Ecological Information

Toxicity to fish: No data available
Toxicity to daphnia and other aquatic invertebrates: No data available
Toxicity to algae: No data available
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
PBT and vPvB assessment: No data available
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number: UN1454
Shipping name: Calcium nitrate
Hazard class: 5.1
Packing group: III
Reportable Quantity: No
Marine pollutant: No
Exceptions: Limited quantity equal to or less than 5 Kg
2012 ERG Guide # 140

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	WHMIS Classification
Calcium nitrate	Listed	Not listed	D001	Listed	Not listed	C

Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Revision Date: February 26, 2014 **Supercedes:** February 26, 2014

Section 1 **Chemical Product and Company Information**

ward's science
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Rochester, NY 14692-9012
Tel: (800) 962-2660

CHEMTREC 24 Hour Emergency
Phone Number (800) 424-9300
For laboratory use only.
Not for drug, food or household use.

Product	**CALCIUM SULFATE, ANHYDROUS, INDICATING**
Synonyms	Drierite® Indicating / Anhydrous Gypsum

Section 2 **Hazards Identification**

Signal word: DANGER
Pictograms: GHS07 / GHS08 / GHS09
Target organs: None known



GHS Classification:
Acute toxicity, oral (Category 5)
Skin sensitization (Category 1)
Respiratory sensitization (Category 1)
Mutagenicity (Category 2)
Carcinogenicity (Category 1B)
Reproductive toxicity (Category 1B)
Aquatic acute (Category 1)
Aquatic chronic (Category 1)

GHS Label information: Hazard statement:
H303: May be harmful if swallowed.
H317: May cause an allergic skin reaction.
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341: Suspected of causing genetic defects.
H350: May cause cancer.
H360: May damage fertility or the unborn child.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statement: None required
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P261: Avoid breathing dust.
P272: Contaminated work clothing should not be allowed out of the workplace.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P284: Wear respiratory protection.
P273: Avoid release to the environment.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor.
P302+P352: IF ON SKIN: Wash with plenty of water and soap.
P333+P313: If skin irritation or rash occurs: Get medical attention.
P308+P313: IF exposed or concerned: Get medical attention.
P362+P364: Take off contaminated clothing and wash it before reuse.
P391: Collect spillage.
P405: Store locked up.
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Section 3 **Composition / Information on Ingredients**

Chemical Name	CAS #	%	EINECS
Calcium sulfate	7778-18-9	97%	231-900-3
Cobalt chloride	7646-79-9	3%	231-589-4

Section 4 **First Aid Measures**

INGESTION: MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: MAY BE HARMFUL IF INHALED. MAY CAUSE RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: MAY CAUSE EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY BE HARMFUL IF ABSORBED THROUGH SKIN. MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 **Fire Fighting Measures**

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Section 6 **Accidental Release Measures**

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Recover for reuse if not contaminated. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Protect from moisture.

Section 8 Exposure Controls / Personal Protection

Exposure Limits:

Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Calcium sulfate	TWA: 10 mg/m^3	TWA: 15 mg/m^3 total dust	TWA: 10 mg/m^3 total dust

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Appearance: Solid. Blue* crystals
Odor: No odor
Odor threshold: Data not available
pH: Data not available
Melting / Freezing point: 1450°C (2642°F)
Boiling point: Data not available
Flash point: Data not available
Evaporation rate (= 1): Data not available
Flammability (solid/gas): Data not available
Explosion limits: Lower / Upper: Data not available
Vapor pressure (mm Hg): Negligible
Vapor density (Air = 1): Data not available
Relative density (Specific gravity): 2.32-2.96
Solubility(ies): 0.21 g/100 ml water @ 18.75°C
Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: Data not available
Viscosity: Data not available
Molecular formula: Mixture
Molecular weight: Mixture

Section 10 Stability & Reactivity

Chemical stability: Stable
Hazardous polymerization: Will not occur.
Conditions to avoid: Protect from moisture. Material will harden on exposure to moisture. *Color changes to red after exposure to moisture, then back to blue after redrying.
Incompatible materials: Acids.
Hazardous decomposition products: Calcium oxides, sulfur oxides.

Section 11 Toxicological Information

Acute toxicity: Data not available
Skin corrosion/irritation: Data not available
Serious eye damage/irritation: Data not available
Respiratory or skin sensitization: Data not available
Germ cell mutagenicity: Data not available
Carcinogenity: Data not available
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.
Reproductive toxicity: Data not available
STOT-single exposure: Data not available
STOT-repeated exposure: Data not available
Aspiration hazard: Data not available
Potential health effects:
Inhalation: May cause irritation of the throat and upper respiratory tract.
Ingestion: May be harmful if swallowed. Because material hardens quickly after absorbing moisture, ingestion may result in obstruction, particulary at the pylorus.
Skin: Contact with skin may cause irritation and/or defatting on prolonged contact.
Eyes: Contact with eyes may cause irritation.
Signs and symptoms of exposure: Exercise appropriate procedures to minimize potential hazards.
Additional information: RTECS #: WS6920000 [Calcium sulfate]

Section 12 Ecological Information

Toxicity to fish: Gasterosteus aculeatus (fish, fresh water), LC100 = 10-15 g/L/1 day [Calcium sulfate]
Toxicity to daphnia and other aquatic invertebrates: Crangon crangon (Crustacea), NOEC = <2.5 g/L/24 hours [Calcium sulfate]
Toxicity to algae: Chlorella vulgaris (Algae), EC98 = 1.872 g/L/30 day [Calcium sulfate]
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
PBT and vPvB assessment: No data available
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number: Not applicable
Shipping name: Not Regulated
Hazard class: Not applicable
Packing group: Not applicable
Reportable Quantity: No
Marine pollutant: No
Exceptions: Not applicable
2012 ERG Guide # Not applicable

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	WHMIS Classification
Calcium sulfate	Listed	Not listed	Not listed	Listed	Not listed	Uncontrolled product
Cobalt chloride	Listed	Not listed	Not listed	Listed	Not listed	D1B ; D2A ; D2B

Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program. IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration. STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure. ERG: Emergency Response Guidebook.

Revision Date: February 25, 2014 **Supercedes:** February 25, 2014

SAFETY DATA SHEET **SDS No.:** CC0155 **GENERAL STORAGE CODE GREEN**

Section 1 Chemical Product and Company Information

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Tel: (800) 962-2660

CHEMTREC 24 Hour Emergency
Phone Number (800) 424-9300
For laboratory use only.
Not for drug, food or household use.

Product	**CALCIUM SULFATE, HEMIHYDRATE**
Synonyms	Plaster of Paris / Dried Gypsum

Section 2 Hazards Identification

This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.

Signal word: WARNING
Pictograms: GHS08
Target organs: None known



GHS Classification:
*STOT-RE (Category 2)

GHS Label information: Hazard statement:
*H373: May cause damage to organs (*lungs*) through prolonged or repeated exposure (*inhalation*).

** Respirable dust particles containing crystalline silica may be generated by crushing. There are no known hazards associated with this material when used as recommended.*

Precautionary statement:
P260: Do not breathe dust.
P314: Get medical advice/attention if you feel unwell.
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65 - WARNING! This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Calcium sulfate, hemihydrate	26499-65-0	60-100%	231-900-3 (anhydrous)
Calcium carbonate	1317-65-3	10-30%	215-279-6
Crystalline silica	14808-60-7	0.5-1.5%	238-878-4

Section 4 First Aid Measures

INGESTION: Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: PROLONGED INHALATION OF PARTICULATE DUST MAY BE HARMFUL. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: MAY CAUSE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY CAUSE ABRASIONS. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Product will not burn or support fire. Use any media suitable for extinguishing supporting fire

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: Limestone reacts with acids to release carbon dioxide.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area.

Section 8 Exposure Controls / Personal Protection

	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Exposure Limits:	Calcium sulfate	TWA: 10 1 mg/m^3	TWA: 5 mg/m^3 Respirable fraction	TWA: 5 mg/m^3 Respirable fraction

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Appearance: Solid. White powder.
Odor: No odor.
Odor threshold: Data not available.
pH: Data not available.
Melting / Freezing point: Data not available
Boiling point: Data not available
Flash point: Not flammable

Evaporation rate (= 1): Not applicable
Flammability (solid/gas): Data not available.
Explosion limits: Lower / Upper: Not flammable
Vapor pressure (mm Hg): Data not available
Vapor density (Air = 1): Data not available
Relative density (Specific gravity): 2.8
Solubility(ies): Data not available

Partition coefficient: Not applicable
Auto-ignition temperature: Not applicable
Decomposition temperature: Data not available
Viscosity: Data not available.
Molecular formula: $CaSO_4 \cdot 1/2H_2O$
Molecular weight: 145.15

Section 10 Stability & Reactivity

Chemical stability: Stable
Conditions to avoid: Avoid contact with acids.

Hazardous polymerization: Will not occur.

Incompatible materials: Strong oxidizers, bases. Reacts with acids to liberate carbon dioxide.

Hazardous decomposition products: Carbon oxideS, nitrogen oxides.

Section 11 Toxicological Information

Acute toxicity: Data not available
Skin corrosion/irritation: Data not available
Serious eye damage/irritation: Data not available
Respiratory or skin sensitization: Data not available
Germ cell mutagenicity: Data not available
Carcinogenity: Data not available
NTP: Known to be a human carcinogen (respirable). [crystalline silica]*
IARC classified: Group 1: Carcinogenic to humans. [crystalline silica]*
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity: Data not available
STOT-single exposure: Data not available
STOT-repeated exposure: Inhalation - May cause damage to organs through prolonged or repeated exposure. [crystalline silica]*
Aspiration hazard: Data not available
Potential health effects:
Inhalation: May cause irritation to the respiratory tract (nose, mouth, mucous membranes).
Ingestion: Harmful if swallowed. May cause irritation to mucous membranes. May result in obstruction when material hardens.
Skin: May cause irritation and/or dry skin. May develop enough heat to cause burns if a large mass is kept in contact with skin while hardening (such as casts).
Eyes: May cause irritation.
Signs and symptoms of exposure: Prolonged inhalation of particulate dust, may result in silicosis, a disabling pulmonary fibrosis characterized by fibrotic changes and miliary nodules in the lungs, a dry cough, shortness of breath, emphysema, decreased chest expansion, and increased susceptibility to tuberculosis.
Additional information: RTECS #: TP0700000
** Respirable dust particles containing crystalline silica may be generated by crushing. There are no known hazards associated with this material when used as recommended.*

Section 12 Ecological Information

Toxicity to fish: No data available
Toxicity to daphnia and other aquatic invertebrates: No data available
Toxicity to algae: No data available
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
PBT and vPvB assessment: No data available
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information

UN/NA number: Not applicable
Shipping name: Not Regulated
Hazard class: Not applicable
Packing group: Not applicable
Reportable Quantity: No
Marine pollutant: No
Exceptions: Not applicable
2012 ERG Guide # Not applicable

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	WHMIS Classification
Calcium sulfate, anhydrous	Listed	Not listed	Not listed	Listed	Not listed	Uncontrolled product

Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Revision Date: January 29, 2013 **Supercedes:** January 29, 2013

SDS #: 192
Revision Date: March 21, 2014

Calcium Turnings Safety Data Sheet (SDS)

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Calcium Turnings

Signal Word
DANGER

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261
Chemtrec Emergency Phone Number: (800) 424-9555

SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Substances and mixtures which, in contact with water, emit flammable gases (Category 2). In contact with water releases flammable hydrogen gas (H261). Handle under inert gas. Protect from moisture (P231+P232).

Pictograms



SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Calcium (metal)	7440-70-2	Ca	40.08	

SECTION 4 — FIRST AID MEASURES

Call a POISON CENTER or physician if you feel unwell.
If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.
If on skin: Brush off loose particles from skin (P335). Then wash with plenty of water.
If swallowed: Rinse mouth. Call a POISON CENTER or physician if you feel unwell. Brush off loose particles from skin (P335).

SECTION 5 — FIRE FIGHTING MEASURES

Flammable solid.
Violent reaction with water. Produces hydrogen.
In case of fire: Use Class D, Met-L-X, or dry sand as a fire extinguisher. Avoid water contact, violent reaction with water.

NFPA Code
H-3
F-1
R-2
No Water

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Remove all ignition sources and water. Sweep up the spill, place in a sealed bag or container, and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Inorganic #1. Store with metals and metal hydrides.
Handle under inert gas. Protect from moisture (P231+P232). Keep container tightly closed (P233). Store in a Flinn Chem-Saf™ bag and then inside a Finn Saf-Stor™ can.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Silver-white, soft metal. Odorless.
Soluble: Acid. Decomposes in water to liberated hydrogen.

Boiling point: 1440 °C
Melting point: 842 °C
Specific gravity: 1.55

SECTION 10 — STABILITY AND REACTIVITY

Highly reactive with water and oxidizing agents. Contact with water will evolve extremely flammable hydrogen gas.
Shelf life: Good, but only if stored under airtight conditions.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Skin, eye, and mucous membrane irritant due to the presence of water.
Chronic effects: N.A.
Target organs: N.A.

ORL-RAT LD_{50}: N.A.
IHL-RAT LC_{50}: N.A.
SKN-RBT LD_{50}: N.A.

SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply before proceeding.
Flinn Suggested Disposal Method #3 is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Calcium. Hazard class: 4.3, Dangerous when wet. UN number: UN1401.

SECTION 15 — REGULATORY INFORMATION

TSCA-listed, EINECS-listed (231-179-5), RCRA code D001, D003.

SECTION 16 — OTHER INFORMATION

This Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific, Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

N.A. = Not available, not all health aspects of this substance have been fully investigated.
N/A = Not applicable

Consult your copy of the Flinn Science Catalog/Reference Manual for additional information about laboratory chemicals.

Revision Date: March 21, 2014

Aaron Industries

Material Safety Data Sheet

Isopropyl Alcohol - 91%

CARE ONE ISOPROPYL ALCOHOL

Section I

Manufacturer: Aaron Industries

Address: Highway 72 West, P.O. Box 305
Clinton, South Carolina 29325

Emergency Phone (Chemtrec): 800.424.9300

Generic Name: Isopropyl Alcohol

Trade Name: Isopropyl Alcohol

Chemical Family: Pharmaceutical Preparation
Medicament inside a glass, plastic, or metal container suitable for dispensing. May be overpacked in a cardboard or plastic container.

Chemical Ingredients: Isopropyl Alcohol (CAS 67-63-0), Water

Section II — Physical Data

Boiling Point: 82°C (Isopropyl Alcohol 99%)

Vapor Pressure: 36mm Hg @ 25°C (Isopropyl Alcohol 99%)

Vapor Density (Air = 1): 2.6

Specific Gravity: 0.8191-0.8123

Percent Volatile by Volume: 100%

Evaporation Rate: Unknown

Solubility in Water: 100%

Appearance and Odor: Glass, metal, or plastic container, properly labeled. Contents are clear and colorless and may have a characteristic alcoholic odor.

Section III — Fire and Explosion Hazard Data

Flash Point: 16.1°C

Flammable Limits: Lower 5.0 Upper 12.0

Extinguishing Method: Water, chemical, carbon dioxide, or other methods as required.

Special Fire Fighting Precautions: Wear SCBA

Unusual Fire and Explosion Hazards: Combustible liquid. Avoid heat, sparks, and open flame.

Revised: 1/31/12

Aaron Industries

Material Safety Data Sheet

Isopropyl Alcohol - 91%

Section IV — Health Hazard Data

Threshold Limit Value:	400ppm (980mg/m^3) - 500ppm (1225mg/m^3)
Effects of Over Exposure:	Unknown
Emergency First Aid Procedures:	If on the skin (including eyes, nose, or mouth), flush with water. If ingested, call a physician, pharmacist, or a Poison Control Center immediately.

Section V — Reactivity Data

Stability Conditions to Avoid:	Avoid excessive temperatures. Keep away from open flames.
Incompatibility:	None
Hazardous Decomposition Products:	None
Hazardous Polymerization:	None
Conditions to Avoid:	Keep away from open flames.
Materials and Conditions to Avoid Completely:	Caustics, amines, alkanolamines, aldehydes, strong oxidizing agents, and chlorinated compounds.

Section VI — Spill or Leak Procedure

Steps to be taken in case material is released or spilled:	Clean up with damp cloth or moist sponge. Flush with water if necesary.
Waste Disposal Method:	Incineration or land fill.

Section VII — Special Protection Information

Respiratory Protection:	None required
Ventilation:	Normal
Protective Gloves:	Recommended
Eye Protection:	Recommended (Safety Glasses or Face Shield)
Other Protective Equipment:	None

Section VIII — Special Precautions

Precautions to be taken in handling and storage:	Take care to avoid puncturing containers.
Other Precautions:	Avoid excessive temperatures. Keep away from open flames.

Aaron Industries

Material Safety Data Sheet

Isopropyl Alcohol - 91%

Section IX Other Information

Keep this and all medication out of the reach of children.

	HMIS (USA)	NFPA (USA)
Health	2	1
Flammability	3	3
Reactivity	0	0

Key: 4= Severe, 3=Serious, 2=Moderate, 1=Slight, 0=Minimal
Hazardous Materials Identification System **(HMIS)**
National Fire Protection Agency **(NFPA)**

This information herein is furnished without warranty of any kind. This information should be used only as a supplement to information already in your possession concerning this product. The determination of whether or under what conditions this product should be used by you or your employees is yours to make.

SAFETY DATA SHEET

P&G

Issuing Date: 27-Mar-2015 **Revision Date:** 27-Mar-2015 **Version** 1

1. IDENTIFICATION

Product Name	Cascade Complete Powder Dishwasher Detergent - Fresh
Product ID:	99300379_RET_NG
Product Type:	Finished Product - Consumer (Retail) Use Only
Recommended Use	Dish Care
Restrictions on Use	Use only as directed on label.
Synonyms	Cascade Complete Powder Dishwasher Detergent- Citrus Breeze (99300383_RET_NG)
Manufacturer	PROCTER & GAMBLE - Fabric and Home Care Division. Ivorydale Technical Centre. 5289 Spring Grove Avenue, Cincinnati, Ohio 45217-1087 USA
E-mail Address	pgsds.im@pg.com
Emergency Telephone	Transportation (24 HR) CHEMTREC - 1-800-424-9300 (U.S./ Canada) or 1-703-527-3887 Mexico toll free in country: 800-681-9531

2. HAZARD IDENTIFICATION

"Consumer Products", as defined by the US Consumer Product Safety Act and which are used as intended (typical consumer duration and frequency), are exempt from the OSHA Hazard Communication Standard (29 CFR 1910.1200). This SDS is being provided as a courtesy to help assist in the safe handling and proper use of the product.

This product is classifed under 29CFR 1910.1200(d) and the Canadian Hazardous Products Regulation as follows:.

Hazard Category	
Eye Damage / Irritation	Category 2A
Signal Word	WARNING
Hazard Statements	Causes serious eye irritation

Hazard pictograms



Precautionary Statements - Wash hands thoroughly after handling

Prevention

Precautionary Statements - Response	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention IF SWALLOWED: Drink 1 or 2 glasses of water
Precautionary Statements - Storage	None
Precautionary Statements - Disposal	None
Hazards not otherwise classified (HNOC)	None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients are listed according to 29CFR 1910.1200 Appendix D and the Canadian Hazardous Products Regulation

Chemical Name	Synonyms	Trade Secret	CAS-No	Weight-%
Sodium carbonate	-	No	497-19-8	30 - 35
Silicic acid, sodium salt	-	No	1344-09-8	1 - 5

4. FIRST AID MEASURES

First aid measures for different exposure routes

Eye contact	Rinse with plenty of water. Get medical attention immediately if irritation persists.
Skin contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.
Ingestion	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.
Inhalation	Move to fresh air. If symptoms persist, call a physician.
Most important symptoms/effects, acute and delayed	None under normal use conditions.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician	Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable extinguishing media	Dry chemical, CO_2, alcohol-resistant foam or water spray.
Unsuitable Extinguishing Media	None.
Special hazard	None known.
Special protective equipment for fire-fighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Specific hazards arising from the chemical None.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment. Do not get in eyes, on skin, or on clothing.

Advice for emergency responders Use personal protective equipment as required.

Methods and materials for containment and cleaning up

Methods for containment Prevent dust cloud. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Dispose of in accordance with local regulations.

7 HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible products None known.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines No exposure limits noted for ingredient(s).

Exposure controls

Engineering Measures

Distribution, Workplace and Household Settings:
Ensure adequate ventilation

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction

Personal Protective Equipment

Eye Protection

Distribution, Workplace and Household Settings:
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Use appropriate eye protection

Hand Protection

Distribution, Workplace and Household Settings:
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Protective gloves

Skin and Body Protection

Distribution, Workplace and Household Settings:
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
Wear suitable protective clothing

Respiratory Protection

Distribution, Workplace and Household Settings:
No special protective equipment required

Product Manufacturing Plant (needed at Product-Producing Plant ONLY):
In case of insufficient ventilation wear suitable respiratory equipment

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State @20°C	solid
Appearance	white powder
Odor	Scented
Odor threshold	No information available

Property	Values	Note
pH value	11.10	(as 1% solution)
Melting/freezing point	No information available	
Boiling point/boiling range	No information available	
Flash point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
Upper flammability limit	No information available	
Lower Flammability Limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Relative density	1.18 g/cc	
Water solubility	100%	
Solubility in other solvents	No information available	
Partition coefficient: n-octanol/water	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity of Product	No information available	

VOC Content (%)

Products comply with US state and federal regulations for VOC content in consumer products.

10. STABILITY AND REACTIVITY

Reactivity

None under normal use conditions.

Stability

Stable under normal conditions.

Hazardous polymerization

Hazardous polymerization does not occur.

Hazardous Reactions

None under normal processing.

Conditions to Avoid

None under normal processing.

Materials to avoid

None in particular.

Hazardous Decomposition Products None under normal use.

11. TOXICOLOGICAL INFORMATION

Product Information

Information on likely routes of exposure

Inhalation	No known effect.
Skin contact	No known effect.
Ingestion	No known effect.
Eye contact	Causes serious eye irritation.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity	No known effect.
Skin corrosion/irritation	No known effect.
Serious eye damage/eye irritation	Causes serious eye irritation.
Skin sensitization	No known effect.
Respiratory sensitization	No known effect.
Germ cell mutagenicity	No known effect.
Neurological Effects	No known effect.
Reproductive toxicity	No known effect.
Developmental toxicity	No known effect.
Teratogenicity	No known effect.
STOT - single exposure	No known effect.
STOT - repeated exposure	No known effect.
Target Organ Effects	No known effect.
Aspiration hazard	No known effect.
Carcinogenicity	No known effect.

Component Information

Chemical Name	CAS-No	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium carbonate	497-19-8	2800 mg/kg bw (Guideline not indicated; rat)	> 2000 mg/kg bw (EPA 16 CFR 1500.40; rabbit)	-
Silicic acid, sodium salt	1344-09-8	3400 mg/kg bw (Similar to OECD 401; standard acute method; rat)	> 5000 mg/kg bw (Read across data on AgSil TM 25 Potassium silicate solution; rat)	> 2.06 mg/L air (Read across data AgSil TM 25 Potassium silicate solution; EPA OPPTS 870.1300; standard acute method; rat)

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not expected to be hazardous to the environment.

Persistence and degradability	No information available.
Bioaccumulative potential	No information available.
Mobility	No information available.
Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste from Residues / Unused Products	Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Codes (non-household setting) 331

14. TRANSPORT INFORMATION

DOT Not regulated

IMDG Not regulated

IATA Not regulated

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

Clean Water Act
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

California Proposition 65
This product is not subject to warning labeling under California Proposition 65.

U.S. State Regulations (RTK)

Chemical Name	CAS-No	[illegible]
Sulfuric acid sodium salt (1:2)	7757-82-6	X

Chemical Name	CAS-No	[illegible]
Sulfuric acid sodium salt (1:2)	7757-82-6	X

International Inventories

United States
All intentionally-added components of this product(s) are listed on the US TSCA Inventory.

Canada
This product is in compliance with CEPA for import by P&G.

Legend
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
CEPA - Canadian Environmental Protection Act

16. OTHER INFORMATION

Issuing Date: 27-Mar-2015
Revision Date: 27-Mar-2015
Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

Safety Data Sheet

Cell Lysis Solution

CAROLINA®
www.carolina.com

Section 1 Product Description

Product Name:	Cell Lysis Solution
Recommended Use:	Science education applications
Synonyms:	Con-Sen Highly Concentrated Cleaner
Distributor:	Carolina Biological Supply Company 2700 York Road, Burlington, NC 27215 1-800-227-1150
Chemical Information:	800-227-1150 (8am-5pm (ET) M-F)
Chemtrec:	800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

WARNING

Causes eye irritation.

GHS Classification:
Serious Eye Damage/Eye Irritation Category 2B

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%
Cell Lysis Solution		100

Proprietary mixture containing coconut diethanolamide (61790-63-4); tetra potassium pyrophosphate (7320-34-5); potassium tallate (61790-44-1); and water (7732-18-5)

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation:	In case of accident by inhalation: remove casualty to fresh air and keep at rest.
Eyes:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact:	After contact with skin, wash immediately with plenty of water.
Ingestion:	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 5 Firefighting Procedures

Extinguishing Media:	Use methods suitable to fight surrounding fire.
Fire Fighting Methods and Protection:	Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards:	Fire or excessive heat may produce hazardous decomposition products.
Hazardous Combustion Products:	Carbon dioxide, Carbon monoxide

Section 6 Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled:	No health affects expected from the clean-up of this material if contact can be avoided. Follow personal protective equipment recommendations found in Section 8 of this (M)SDS

Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

Section 7 Handling and Storage

Handling: Wash thoroughly after handling. Do not ingest or take internally.
Storage: Suitable for any general chemical storage.
Storage Code: Green - general chemical storage

Section 8 Protection Information

	ACGIH		OSHA PEL	
Chemical Name	**(TWA)**	**(STEL)**	**(TWA)**	**(STEL)**
No data available	N/A	N/A	N/A	N/A

Control Parameters

Engineering Measures: No exposure limits exist for the constituents of this product. No engineering controls are likely to be required to maintain operator comfort under normal conditions of use.
Personal Protective Equipment (PPE): Lab coat, apron, eye wash, safety shower.
Respiratory Protection: No respiratory protection required under normal conditions of use.
Respirator Type(s): Not normally required.
Eye Protection: Wear chemical splash goggles when handling this product. Have an eye wash station available.
Skin Protection: Not normally considered a skin hazard. Where use can result in skin contact, practice good personal hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.
Gloves: No information available

Section 9 Physical Data

Formula: See Section 3
Molecular Weight: N/A
Appearance: Blue Liquid
Odor: Moderate Pleasant, Floral
Odor Threshold: No data available
pH: 10.5
Melting Point: No data available
Boiling Point: 100 C
Flash Point: No data available
Flammable Limits in Air: N/A

Vapor Pressure: N/A
Evaporation Rate (BuAc=1): N/A
Vapor Density (Air=1): N/A
Specific Gravity: 1.01
Solubility in Water: Soluble
Log Pow (calculated): No data available
Autoignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: No data available
Percent Volatile by Volume: N/A

Section 10 Reactivity Data

Reactivity: Not generally reactive under normal conditions.
Chemical Stability: Stable under normal conditions.
Conditions to Avoid: None known.
Hazardous Polymerization: Will not occur

Section 11 Toxicity Data

Routes of Entry Ingestion, skin and eye contact.
Symptoms (Acute): Gastrointestinal,, Eye Irritation, Dermititis
Delayed Effects: No data available

Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
No data available		Not determined	Not determined	Not determined

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
No data available		Not listed	Not listed	Not listed

Chronic Effects:

Mutagenicity: No evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: No evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: No data available
Chronic: Not listed as a carcinogen by IARC, NTP or OSHA.

Section 12 Ecological Data

Overview: This material is not expected to be harmful to the ecology.
Mobility: No data
Persistence: No data
Bioaccumulation: No data
Degradability: No data
Other Adverse Effects: No data

Chemical Name	CAS Number	Eco Toxicity
N/A		

Section 13 Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s): This material is not considered to be a RCRA hazardous waste.

Section 14 Transport Information

Ground - DOT Proper Shipping Name:
Not regulated for transport by DOT

Air - IATA Proper Shipping Name:
Not regulated for air transport by IATA.

Section 15 Regulatory Information

TSCA Status: A component (or components) of this product is not listed on the TSCA Inventory of Existing Chemical Substances. Product is for research and development use only.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
No data available		No	No	No	No	No

California Prop 65: No California Proposition 65 ingredients

Section 16 Additional Information

Safety Data Sheet

Revised: 08/21/2018 **Replaces: 06/15/2018** **Printed: 08-25-2018**

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstract Service Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation
IARC	International Agency for Research on Cancer
N/A	Not Available
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
IDLH	Immediately dangerous to life and health

Section 1 Chemical Product and Company Information

ward's science
5100 West Henrietta Rd
PO Box 92912
Rochester, NY 14692-9012
Tel: (800) 962-2660

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300
For laboratory use only.
Not for drug, food or household use.

Product	**CETYL ALCOHOL**
Synonyms	1-Hexadecanol / Hexadecyl Alcohol

Section 2 Hazards Identification

This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.

Signal word: None required
Pictograms: No symbol required
Target organs: None known

GHS Classification: None required
GHS Label information: Hazard statement: None required
Precautionary statement: None required

Supplemental information:
Do not breathe dust. Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Get medical attention if you feel unwell.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Cetyl alcohol	36653-82-4	100%	253-149-0

Section 4 First Aid Measures

INGESTION: MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: MAY BE HARMFUL IF INHALED. MAY CAUSE RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: MAY CAUSE EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY BE HARMFUL IF ABSORBED THROUGH SKIN. MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Recover for reuse if not contaminated. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 Exposure Controls / Personal Protection

Exposure Limits:

Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Cetyl alcohol	Not established	Not established	Not established

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Appearance: Solid. White, waxy flakes
Odor: No odor
Odor threshold: Data not available
pH: Data not available
Melting / Freezing point: 49-50°C (120-122°F)
Boiling point: 190°C (374°F)
Flash point: 113°C (235°F) CC

Evaporation rate (= 1): Data not available
Flammability (solid/gas): Data not available
Explosion limits: Lower / Upper: 1% / 8%
Vapor pressure (mm Hg): <0.1
Vapor density (Air = 1): 8.34 g/L
Relative density (Specific gravity): 0.818 g/cm^3
Solubility(ies): Insoluble in water

Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: Data not available
Viscosity: Data not available
Molecular formula: $CH_3(CH_2)_{14}CH_2OH$
Molecular weight: 242.45

Section 10 Stability & Reactivity

Chemical stability: Stable
Hazardous polymerization: Will not occur.
Conditions to avoid: Excessive temperatures, heat, sparks, open flame and other sources of ignition.

Incompatible materials: Strong oxidizers and acids.

Hazardous decomposition products: Carbon oxides.

Section 11 Toxicological Information

Acute toxicity: Oral-rat LD50: 5000 mg/kg
Skin corrosion/irritation: Data not available
Serious eye damage/irritation: Data not available
Respiratory or skin sensitization: Data not available
Germ cell mutagenicity: Data not available
Carcinogenity: Data not available
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.
Reproductive toxicity: Data not available
STOT-single exposure: Data not available
STOT-repeated exposure: Data not available
Aspiration hazard: Data not available
Potential health effects:
Inhalation: May be harmful by inhalation.
Ingestion: May be harmful if swallowed.
Skin: Contact with skin causes severe irritation.
Eyes: Contact with eyes may cause severe irritation.
Signs and symptoms of exposure: To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is not available. Exercise appropriate procedures to minimize potential hazards.
Additional information: RTECS #: MM0225000

Section 12 Ecological Information

Toxicity to fish: No data available
Toxicity to daphnia and other aquatic invertebrates: No data available
Toxicity to algae: No data available
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
PBT and vPvB assessment: No data available
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number: Not applicable
Shipping name: Not Regulated
Hazard class: Not applicable
Packing group: Not applicable
Reportable Quantity: No
Marine pollutant: No
Exceptions: Not applicable
2012 ERG Guide # Not applicable

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	WHMIS Classification
Cetyl alcohol	Listed	Not listed	Not listed	Listed	Not listed	D2B

Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Revision Date: March 3, 2014 **Supercedes:** March 3, 2014

Section 1 Chemical Product and Company Information

ward's science
5100 West Henrietta Rd
PO Box 92912
Rochester, NY 14692-9012
Tel: (800) 962-2660

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300
For laboratory use only.
Not for drug, food or household use.

Product	**CHARCOAL, ACTIVATED**
Synonyms	Activated Carbon

Section 2 Hazards Identification

This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.

Signal word: None required
Pictograms: No symbol required
Target organs: None known

GHS Classification: None required
GHS Label information: Hazard statement: None required
Precautionary statement: None required

Supplemental information:
Do not breathe dust. Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Get medical attention if you feel unwell.

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Activated carbon	7440-44-0	100%	231-153-3

Section 4 First Aid Measures

INGESTION: MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: MAY BE HARMFUL. IF INHALED. CAUSES RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: MAY CAUSE EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY BE HARMFUL IF ABSORBED THROUGH SKIN. MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Carbon dioxide, dry chemical, dry sand, alcohol foam.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Dust dispersed in air becomes explosive when exposed to ignition source.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Remove all sources of ignition. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from ignition sources.

Section 8 Exposure Controls / Personal Protection

Exposure Limits:

Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Particulates not otherwise classified	TWA: 5 mg/m^3 Respirable fraction	None established	None established

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Appearance: Solid. Black powder.
Odor: No odor.
Odor threshold: Data not available.
pH: Data not available
Melting / Freezing point: Data not available
Boiling point: Data not available
Flash point: Combustible

Evaporation rate (= 1): Data not available
Flammability (solid/gas): Data not available.
Explosion limits: Lower / Upper: Data not available
Vapor pressure (mm Hg): Data not available
Vapor density (Air = 1): Data not available
Relative density (Specific gravity): 0.4 - 0.7 g/cc
Solubility(ies): Insoluble in water.

Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: Data not available
Viscosity: Data not available.
Molecular formula: C
Molecular weight: 12.01

Section 10 Stability & Reactivity

Chemical stability: Stable
Conditions to avoid: Stable under normal fire conditions.
Hazardous polymerization: Will not occur.
Incompatible materials: Strong oxidizers.
Hazardous decomposition products: Oxides of carbon.

Section 11 Toxicological Information

Acute toxicity: Oral-rat LD50: 10,000 mg/kg ; Inhalation-rat LC50: >64.4 mg/l
Skin corrosion/irritation: Data not available
Serious eye damage/irritation: Data not available
Respiratory or skin sensitization: Data not available
Germ cell mutagenicity: Data not available
Carcinogenity: Data not available
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity: Data not available
STOT-single exposure: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory effects.
STOT-repeated exposure: Data not available
Aspiration hazard: Data not available
Potential health effects:
Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.
Ingestion: May be harmful if swallowed.
Skin: May cause skin irritation. May be harmful if absorbed through the skin.
Eyes: May cause eye irritation.
Signs and symptoms of exposure: To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.
Additional information: RTECS #: FF5250100

Section 12 Ecological Information

Toxicity to fish: No data available
Toxicity to daphnia and other aquatic invertebrates: No data available
Toxicity to algae: No data available
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
PBT and vPvB assessment: No data available
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information

UN/NA number: Not applicable
Shipping name: Not Regulated
Hazard class: Not applicable
Packing group: Not applicable
Reportable Quantity: No
Marine pollutant: No
Exceptions: Not applicable
2012 ERG Guide # Not applicable

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	WHMIS Classification
Activated carbon	Listed	Not listed	Not listed	Listed	Not listed	Uncontrolled product

Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Revision Date: August 13, 2013 **Supercedes:** July 5, 2013

Chloroplatinic Acid

SECTION 1: Identification

Product identifier

Product name: Chloroplatinic Acid
Product code: KEMCP2001-AA

Recommended use of the product and restriction on use

Relevant identified uses: Laboratory chemicals
Uses advised against: Not determined or not applicable.
Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:	**Supplier:**
United States	**United States**
AquaPhoenix Scientific	AquaPhoenix Scientific Inc.
860 Gitts Run Road	860 Gitts Run Road
Hanover	Hanover
PA 17331	PA 17331
(717) 632-1291	(717) 632-1291

Emergency telephone number:

United States

Emergency Telephone No.: 800-255-3924

SECTION 2: Hazard(s) identification

GHS classification:

Skin corrosion, category 1A
Skin sensitization, category 1
Respiratory sensitization, category 1

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements:

P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P272 Contaminated work clothing should not be allowed out of the workplace.
P285 In case of inadequate ventilation wear respiratory protection.
P321 Specific treatment (see supplemental first aid instructions on this label).
P363 Wash contaminated clothing before reuse.

P304+P340+P310 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
P301+P330+P331+P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.
P303+P361+P353+P310 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
P302+P352 If on skin: Wash with soap and water.
P333+P313 If skin irritation or a rash occurs: Get medical advice/attention.
P405 Store locked up.
P501 Dispose of contents and container as instructed in Section 13.

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 7732-18-5	Water	99.9
CAS number: 18497-13-7	Chloroplatinic Acid	0.1

Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

General notes:
Not determined or not applicable.

After inhalation:
Move exposed individual to fresh air
Loosen clothing as necessary and position individual in a comfortable position
Immediately call a POISON CONTROL CENTER or seek medical attention

After skin contact:
Immediately remove all contaminated clothing
Wash affected area with soap and water
Immediately call a POISON CONTROL CENTER or seek medical attention

After eye contact:
Rinse/flush exposed eye(s) gently using water for 15-20 minutes
Remove contact lens(es) if able to do so during rinsing
Immediately call a POISON CONTROL CENTER or seek medical attention

After swallowing:
Immediately call a POISON CONTROL CENTER or seek medical attention
Do not induce vomiting
Rinse mouth and then drink plenty of water

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:
Not determined or not applicable.

Delayed symptoms and effects:

Not determined or not applicable.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not applicable.

Notes for the doctor:

Not determined or not applicable.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

Unsuitable extinguishing media:

Not determined or not applicable.

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

Special protective equipment for firefighters:

Wear protective eye wear, gloves and clothing
Refer to Section 8
Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

Special precautions:

Heating causes a rise in pressure, risk of bursting and combustion
Shut off sources of ignition
Carbon monoxide and carbon dioxide may form upon combustion

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation
Ensure air handling systems are operational
Wear protective eye wear, gloves and clothing

Environmental precautions:

Should not be released into the environment
Prevent from reaching drains, sewer or waterway

Methods and material for containment and cleaning up:

Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders)
Dispose of contents / container in accordance with local regulations

Reference to other sections:

Not determined or not applicable.

SECTION 7: Handling and storage

Precautions for safe handling:

Do not eat, drink, smoke or use personal products when handling chemical substances.
Avoid breathing mist or vapor.
Use only with adequate ventilation.

Conditions for safe storage, including any incompatibilities:

Store in a cool, well-ventilated area.
Store away from foodstuffs.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
ACGIH	Chloroplatinic Acid	18497-13-7	ACGIH TLV: 0.002 mg/m3 as Pt
United States (OSHA)	Chloroplatinic Acid	18497-13-7	OSHA PEL TWA value 0.002 mg/m3 as Pt

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Not determined or not applicable.

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Personal protection equipment

Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.

Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

General hygienic measures:

Wash hands before breaks and at the end of work.
Avoid contact with skin, eyes and clothing.
Perform routine housekeeping.
Wash contaminated clothing before reusing.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Liquid
Odor	Odorless
Odor threshold	Not available
pH	Not available
Melting point/freezing point	Not available
Initial boiling point/range	Not available
Flash point (closed cup)	Not available
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Upper flammability/explosive limit	Not available
Lower flammability/explosive limit	Not available
Vapor pressure	Not available
Vapor density	Not available

Chloroplatinic Acid

Density	Not available
Relative density	Not available
Solubilities	Not determined or not available.
Partition coefficient (n-octanol/water)	Not available
Auto/Self-ignition temperature	Not available
Decomposition temperature	Not available
Dynamic viscosity	Not available
Kinematic viscosity	Not available
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:
Does not react under normal conditions of use and storage.
Chemical stability:
Stable under normal conditions of use and storage.
Possibility of hazardous reactions:
None under normal conditions of use and storage.
Conditions to avoid:
None known.
Incompatible materials:
None known.
Hazardous decomposition products:
None known.

SECTION 11: Toxicological information

Acute toxicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.
Skin corrosion/irritation
Assessment: Causes severe skin burns and eye damage
Product data: No data available.
Substance data: No data available.
Serious eye damage/irritation
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.
Respiratory or skin sensitization
Assessment: May cause an allergic skin reaction May cause allergy or asthma symptoms or breathing difficulties if inhaled
Product data: No data available.
Substance data: No data available.
Carcinogenicity
Assessment: Based on available data, the classification criteria are not met.

Chloroplatinic Acid

Product data: No data available.
Substance data: No data available.
International Agency for Research on Cancer (IARC): None of the ingredients are listed.
National Toxicology Program (NTP): None of the ingredients are listed.

Germ cell mutagenicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Reproductive toxicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Specific target organ toxicity (single exposure)
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Specific target organ toxicity (repeated exposure)
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Aspiration toxicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Information on likely routes of exposure: No data available.
Symptoms related to the physical, chemical and toxicological characteristics: No data available.
Other information: No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Chronic (long-term) toxicity
Product data: No data available.
Substance data: No data available.

Persistence and degradability
Product data: No data available.
Substance data: No data available.

Bioaccumulative potential
Product data: No data available.
Substance data: No data available.

Mobility in soil
Product data: No data available.
Substance data: No data available.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Chloroplatinic Acid

Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11)

SECTION 14: Transport information

United States Transportation of dangerous goods (49 CFR DOT)

UN number	UN 2507
UN proper shipping name	Chloroplatinic acid, solid.
UN transport hazard class(es)	8 
Packing group	III
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	UN 2507
UN proper shipping name	Chloroplatinic acid, solid.
UN transport hazard class(es)	8 
Packing group	III
Environmental hazards	None
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	UN 2507
UN proper shipping name	Chloroplatinic acid, solid.
UN transport hazard class(es)	8 
Packing group	III
Environmental hazards	None
Special precautions for user	None

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
Bulk Name	None
Ship type	None
Pollution category	None

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

7732-18-5	Water	Listed

Chloroplatinic Acid

18497-13-7	Chloroplatinic Acid	Not Listed

Significant New Use Rule (TSCA Section 5): Not determined.

Export notification under TSCA Section 12(b): Not determined.

SARA Section 311/312 hazards:

Acute	Chronic	Fire	Pressure	Reactive
No	No	No	No	No

SARA Section 302 extremely hazardous substances: Not determined.

SARA Section 313 toxic chemicals: Not determined.

CERCLA: Not determined.

RCRA: Not determined.

Section 112(r) of the Clean Air Act (CAA): Not determined.

Massachusetts Right to Know:

7732-18-5	Water	Not Listed
18497-13-7	Chloroplatinic Acid	Not Listed

New Jersey Right to Know:

7732-18-5	Water	Not Listed
18497-13-7	Chloroplatinic Acid	Not Listed

New York Right to Know:

7732-18-5	Water	Not Listed
18497-13-7	Chloroplatinic Acid	Not Listed

Pennsylvania Right to Know:

7732-18-5	Water	Not Listed
18497-13-7	Chloroplatinic Acid	Not Listed

California Proposition 65: Not determined.

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

NFPA: 3-0-0

HMIS: 3-0-0

Chloroplatinic Acid

Initial preparation date: 12.12.2016

End of Safety Data Sheet

SAFETY DATA SHEET (SDS)

MATERIAL NAME: **CHROMA MOLTEN METALS METALLIC ACRYLIC** LAST REVISION: **03/16/2016**

SECTION 1 – IDENTIFICATION

Material Name
CHROMA MOLTEN METALS METALLIC ACRYLIC

Product Number
Various
(All information the same for all colors and sizes.)

Manufacturer Information
Chroma, Inc.
Airport Industrial Park
205 Bucky Drive
Lititz, Pennsylvania 17543
U.S.A.
Phone: 717-626-8866; 1-800-257-8278
Fax: 717-626-9292
Email: jhirneisen@chromaonline.com; infousa@chromaonline.com

For Transportation Emergencies Only: 1-800-257-8278
For Health Emergencies Call the Poison Control Center: 1-888-516-2502
Seek medical assistance for further treatment, observation and support, if necessary.

SECTION 2 – HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

There are no GHS label elements.

PRIMARY ROUTES OF ENTRY: INHALATION, INGESTION, EYE, SKIN

EFFECTS AND SYMPTOMS OF ACUTE EXPOSURE: NONE EXPECTED

EFFECTS AND SYMPTOMS OF CHRONIC EXPOSURE: NONE EXPECTED

CARCINOGEN LISTING: NTP: **NO** IARC: **NO** OSHA: **NO**

SEE SECTION 3 FOR COMPONENTS AFFECTED

MEDICAL CONDITIONS USUALLY AGGRAVATED BY OVER EXPOSURE TO THIS PRODUCT: NONE

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS #	PEL/TLV (MG/M#)	Max % Weight	NTP	IARC
NONE					

While we believe that the data contained herein is factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data is not to be taken as a warranty or representation for which we assume legal responsibility. It is offered solely for your consideration and verification. Any use of this data and information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations.

SECTION 4 – FIRST AID MEASURES

FIRST AID MEASURES: NONE REQUIRED

NO ACUTE HEALTH EFFECTS EXPECTED.

SECTION 5 – FIRE FIGHTING MEASURES

FLASH POINT (METHOD): N/A

AUTOIGNITION TEMPERATURE: N/A

EXPLOSION LIMITS IN AIR (% BY VOLUME): NOT EXPLOSIVE

EXTINGUISHING MEDIA: NO SPECIAL MEDIA REQUIRED

FIRE FIGHTING PROCEDURES: NO SPECIAL FIRE FIGHTING PROCEDURES REQUIRED

UNUSUAL FIRE & EXPLOSION HAZARDS: NOT COMBUSTIBLE

SECTION 6 – ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE A MATERIAL IS SPILLED:
Clean up in accordance with all applicable regulations. Absorb spillage with non- combustible, absorbent material. For waste disposal, see Section 13.

SECTION 7 – HANDLING & STORAGE

PRECAUTIONS TO BE TAKEN DURING STORAGE AND HANDLING:
Good industrial hygiene practice requires that exposure be maintained below the TLV. This is preferably achieved through the provision of adequate ventilation. When exposure cannot be adequately controlled in this way, personal respiratory protection should be employed.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

RESPIRATORY PROTECTION AND SPECIAL VENTILATION REQUIREMENTS: NONE REQUIRED

OTHER PROTECTIVE EQUIPMENT (GLOVES, GOGGLES, ETC.): NONE REQUIRED

WORK / HYGIENE PRACTICES: NONE REQUIRED

ENGINEERING CONTROLS: NONE REQUIRED

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: N/A

MELTING POINT: N/A

VAPOR PRESSURE: N/A

SPECIFIC VAPOR DENSITY (AIR=1): N/A

SPECIFIC GRAVITY: N/A

SOLUBILITY IN WATER: N/A

REACTIVITY IN WATER: NON-REACTIVE

While we believe that the data contained herein is factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data is not to be taken as a warranty or representation for which we assume legal responsibility. It is offered solely for your consideration and verification. Any use of this data and information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations.

SECTION 10 – STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION PRODUCTS: NONE

STABILITY: STABLE CONDITIONS TO AVOID: NONE

INCOMPATIBILITY (MATERIALS TO AVOID): NONE

HAZARDOUS DECOMPOSITION PRODUCTS: NONE

SECTION 11 – TOXICOLOGICAL INFORMATION

ACUTE EFFECTS ASSOCIATED WITH USE OF THIS MATERIAL: NONE EXPECTED
The summated LD50 is 21400 mg/kg.
The summated LC50 is 41684 mg/cubic meter.
This product is not considered to be a known or suspected human carcinogen by NTP, IARC or OSHA (see section 3)

SECTION 12 – ECOLOGICAL INFORMATION

NO HARMFUL EFFECTS KNOWN OTHER THAN THOSE ASSOCIATED WITH SUSPENDED INERT SOLIDS IN WATER.

SECTION 13 – DISPOSAL CONSIDERATIONS

RCRA HAZARD CLASS (40 CFR 261):
THIS PRODUCT IS NOT CLASSIFIED AS A HAZARDOUS WASTE.

WASTE DISPOSAL METHOD:
DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

SECTION 14 – TRANSPORTATION INFORMATION

U.S. DOT (49 CFR 172.101): THIS IS NOT A HAZARDOUS MATERIAL AS CLASSIFIED BY CFR 172.101.

SECTION 15 – REGULATORY INFORMATION

CONTENTS OF THIS SDS COMPLY WITH OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200
EPA SARA TITLE III CHEMICAL LISTINGS
NONE

SECTION 302.4 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355): NONE

SECTION 313 TOXIC CHEMICALS (40 CFR 372): NONE

While we believe that the data contained herein is factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data is not to be taken as a warranty or representation for which we assume legal responsibility. It is offered solely for your consideration and verification. Any use of this data and information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations.

INTERNATIONAL REGULATIONS

CANADIAN WHMIS:
THIS PRODUCT IS A CONTROLLED PRODUCT UNDER CANADA'S WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM.

IT CONTAINS THE FOLLOWING TOXIC OR HIGHLY TOXIC MATERIALS:

NONE

SUPPLEMENTAL STATE COMPLIANCE INFORMATION

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) LISTED UNDER NEW JERSEY'S RIGHT TO KNOW PROGRAM:

AMMONIUM HYDROXIDE

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) REQUIRING NOTIFICATION TO THE STATE OF WASHINGTON UNDER THEIR CHILDREN'S SAFE PRODUCTS ACT:

NONE

Under CPSC's consumer product regulations (16CFR1500.3 and 150014), this product has the following required acute and chronic hazard labeling:

NONE

SECTION 16 – OTHER INFORMATION

ALL INFORMATION THE SAME FOR ALL COLORS AND SIZES.

THIS PRODUCT DOES NOT CONTAIN EGG, DAIRY, WHEAT, GLUTEN, SOY OR PEANUT PRODUCTS, BY-PRODUCTS OR DERIVATIVES.

THIS PRODUCT DOES NOT CONTAIN LATEX MATERIALS OR ANIMAL DERIVED INGREDIENTS.

While we believe that the data contained herein is factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data is not to be taken as a warranty or representation for which we assume legal responsibility. It is offered solely for your consideration and verification. Any use of this data and information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations.

00673-XXXX

SAFETY DATA SHEET (SDS)

MATERIAL NAME: **CHROMACRYL ACRYLIC ESSENTIALS** LAST REVISION: **2/27/2020**

SECTION 1 – IDENTIFICATION

Material Name
CHROMACRYL ACRYLIC ESSENTIALS

Product Number
Various
(All information the same for all colors and sizes.)

Manufacturer Information
Chroma Inc.
205 Bucky Drive
Lititz, Pennsylvania 17543
U.S.A.
Phone: 717-626-8866; 1-800-257-8278
Fax: 717-626-9292
Email: jhirneisen@chromaonline.com; infousa@chromaonline.com

For Transportation Emergencies Only: 1-800-257-8278
For Health Emergencies Call the Poison Control Center: 1-888-516-2502
Seek medical assistance for further treatment, observation and support, if necessary.

SECTION 2 – HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

There are no GHS label elements.

Primary Routes of Entry: Inhalation, Ingestion, Eye, Skin

Effects and Symptoms of Acute Exposure: None Expected

Effects and Symptoms of Chronic Exposure: None Expected

Carcinogen Listing: **NTP:** NO **IARC:** NO **OSHA:** NO

See Section 3 for Components Affected

Medical Conditions Usually Aggravated by Over Exposure to this Product: None

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS #	PEL/TLV (MG/M#)	Max % Weight	NTP	IARC
NONE					

While we believe that the data contained herein is factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data is not to be taken as a warranty or representation for which we assume legal responsibility. It is offered solely for your consideration and verification. Any use of this data and information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations.

SECTION 4 – FIRST AID MEASURES

Skin Wash skin with soap and water or use a product specifically formulated for water based acrylic removal. If irritation persists seek medical help.

Eye Check for and remove any contact lenses.
Flush eyes up to 15 minutes with water, holding eye lids open.
If irritation persists seek medical help.

Inhalation If person is showing adverse effects, remove person to fresh air.
Seek medical help if symptoms occur.

Ingestion Treat Symptomatically.
Never give anything by mouth to an unconscious person.
Seek medical help if symptoms occur.
If swallowed, call your Poison Control Center at 1-800-222-1222.

Seek medical assistance for further treatment, observation and support, if necessary.

Advice to Doctor:
This product carries the A.P. Seal, conforms to ASTM D4236, and is certified non-toxic by a toxicologist in association with the Art & Craft Materials Institute, Hanson, MA 02341 USA.

SECTION 5 – FIRE FIGHTING MEASURES

Flash Point (Method):	N/A
Autoignition Temperature:	N/A
Explosion Limits in Air (% by Volume):	Not Explosive
Extinguishing Media:	No Special Media Required
Fire Fighting Procedures:	No Special Fire Fighting Procedures Required
Unusual Fire & Explosion Hazards:	Not Combustible

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Steps to be Taken in Case a Material is Spilled
Clean up in accordance with all applicable regulations. Absorb spillage with non-combustible, absorbent material. For waste disposal, see Section 13.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb with dry earth, sand or other non-combustible material.

Small Spills: Mop up or absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Clean surface thoroughly to remove residual contamination.
Never return spills to original containers for re-use.

Environmental Precautions
Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

While we believe that the data contained herein is factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data is not to be taken as a warranty or representation for which we assume legal responsibility. It is offered solely for your consideration and verification. Any use of this data and information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations.

SECTION 7 – HANDLING & STORAGE

Precautions for Safe Handling
Good industrial hygiene practice requires that exposure be maintained below the TLV. This is preferably achieved through the provision of adequate ventilation. When exposure cannot be adequately controlled in this way, personal respiratory protection should be employed.
Avoid contact with eyes. Avoid skin contact.
Observe good hygiene practices; wash hands after use.

Storage Requirements
Store at room temperature; keep from freezing.
Recommended storage conditions are between 34° F and 122° F (1° C and 50° C).
Store in original tightly closed container.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection & Special Ventilation Requirements: None needed under normal conditions of use
Protective Gloves: None needed under normal conditions of use
Eye Protection: None needed under normal conditions of use
Other Protective Equipment: None needed under normal conditions of use

Engineering Controls: None Required

Hygienic Work Practices
Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking and/or smoking.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: N/A
Vapor Pressure: N/A
Specific Vapor Density (AIR=1): N/A
Solubility in Water: N/A
Specific Gravity (H2O=1): N/A
Melting Point: N/A
Evaporation Rate: Slower than Ether
Reactivity in Water: Non-Reactive

Appearance & Odor: Liquid acrylic paints in assorted colors. May have slight ammonia smell.

SECTION 10 – STABILITY AND REACTIVITY

Stability (Conditions to Avoid): None
Incompatibility (Materials to Avoid): None
Hazardous Decomposition Products: None
Hazardous Polymerization Products: None

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Effects Associated with the use of this material: None Expected
The summated LD50 is 21400 mg/kg.
The summated LC50 is 41684 mg/cubic meter.
This product is not considered to be a known or suspected human carcinogen by NTP, IARC or OSHA (see section 3)

While we believe that the data contained herein is factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data is not to be taken as a warranty or representation for which we assume legal responsibility. It is offered solely for your consideration and verification. Any use of this data and information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity
The product is not classified as environmentally hazardous.
No harmful effects known other than those associated with suspended inert solids in water.

SECTION 13 – DISPOSAL CONSIDERATIONS

RCRA Hazard Class (40 CFR 261): This product is not classified as hazardous waste.

Waste Disposal Method
Dispose of in accordance with International, Federal, State and Local regulations.

SECTION 14 – TRANSPORTATION INFORMATION

U.S. DOT (49 CFR 172.101): This product is not a hazardous material as classified by CFR 172.101.

SECTION 15 – REGULATORY INFORMATION

US Federal Regulations

Contents of this SDS comply with OSHA Hazard Communications Standard 29 CFR 1910.1200 EPA SARA TITLE III
Chemical Listings: None

Section 302.4 Extremely Hazardous Substances (40 CFR 355): None

Section 313 Toxic Chemicals (40 CFR 372): None

International Regulations

Canadian WHMIS:
This product is a controlled product under Canada's Workplace Hazardous Materials Information System.
It contains the following toxic or highly toxic materials:
Ferric Oxide
Pigment Red 2 Dispersion

Supplemental State Compliance Information

US, New Jersey Right-to-Know
This product contains the following chemical(s) listed under New Jersey's Right to Know Program:
Ammonia Hydroxide
Pigment Red 101
Pigment Red 2 Dispersion

US, Washington Children's Safe Products Act
This product contains the following chemical(s) requiring notification to the State of Washington under their Children's Safe Products Act:
None

Under CPSC's consumer product regulations (16CFR1500.3 and 150014), this product has the following required acute and chronic hazard labeling: None

While we believe that the data contained herein is factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data is not to be taken as a warranty or representation for which we assume legal responsibility. It is offered solely for your consideration and verification. Any use of this data and information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations.

SECTION 16 – OTHER INFORMATION

All information the same for all colors and sizes.

This product does not contain egg, dairy, wheat, gluten, soy or peanut products, by-products or derivatives.

This product does not contain latex materials or animal derived ingredients.

While we believe that the data contained herein is factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data is not to be taken as a warranty or representation for which we assume legal responsibility. It is offered solely for your consideration and verification. Any use of this data and information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations.

Item Numbers: 00673-0069, 00673-0129, 00673-1004, 00673-1006, 00673-1008, 00673-1024, 00673-1026, 00673-1028, 00673-1069, 00673-2024, 00673-2026, 00673-2028, 00673-2069, 00673-2129, 00673-2969, 00673-3044, 00673-3046, 00673-3048, 00673-3069, 00673-3074, 00673-3076, 00673-3078, 00673-3124, 00673-3126, 00673-3128, 00673-3714, 00673-3716, 00673-3718, 00673-3774, 00673-3776, 00673-3778, 00673-4424, 00673-4426, 00673-4428, 00673-4474, 00673-4476, 00673-4478, 00673-4514, 00673-4516, 00673-4518, 00673-5184, 00673-5186, 00673-5188, 00673-5504, 00673-5506, 00673-5508, 00673-5624, 00673-5626, 00673-5628, 00673-6004, 00673-6006, 00673-6008, 00673-7014, 00673-7016, 00673-7018, 00673-8004, 00673-8006, 00673-8008, 00673-8044, 00673-8046, 00673-8048, 00673-8064, 00673-8066, 00673-8068, 00673-8074, 00673-8076, 00673-8078

SAFETY DATA SHEET (SDS)

MATERIAL NAME: **CHROMACRYL STUDENTS' ACRYLIC** LAST REVISION: **01/16/2018**

SECTION 1 – IDENTIFICATION

Material Name
CHROMACRYL STUDENTS' ACRYLIC

Product Number
Various
(All information the same for all colors and sizes.)

Manufacturer Information
Chroma, Inc.
Airport Industrial Park
205 Bucky Drive
Lititz, Pennsylvania 17543
U.S.A.
Phone: 717-626-8866; 1-800-257-8278
Fax: 717-626-9292
Email: jhirneisen@chromaonline.com; infousa@chromaonline.com

For Transportation Emergencies Only: 1-800-257-8278
For Health Emergencies Call the Poison Control Center: 1-888-516-2502
Seek medical assistance for further treatment, observation and support, if necessary.

SECTION 2 – HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

There are no GHS label elements.

PRIMARY ROUTES OF ENTRY: INHALATION, INGESTION, EYE, SKIN

EFFECTS AND SYMPTOMS OF ACUTE EXPOSURE: NONE EXPECTED

EFFECTS AND SYMPTOMS OF CHRONIC EXPOSURE: NONE EXPECTED

CARCINOGEN LISTING: NTP: **NO** IARC: **NO** OSHA: **NO**

SEE SECTION 3 FOR COMPONENTS AFFECTED

MEDICAL CONDITIONS USUALLY AGGRAVATED BY OVER EXPOSURE TO THIS PRODUCT: NONE

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS #	PEL/TLV (MG/M#)	Max % Weight	NTP	IARC
NONE					

While we believe that the data contained herein is factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data is not to be taken as a warranty or representation for which we assume legal responsibility. It is offered solely for your consideration and verification. Any use of this data and information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations.

SECTION 4 – FIRST AID MEASURES

FIRST AID MEASURES: NONE REQUIRED

NO ACUTE HEALTH EFFECTS EXPECTED.

SECTION 5 – FIRE FIGHTING MEASURES

FLASH POINT (METHOD): N/A

AUTOIGNITION TEMPERATURE: N/A

EXPLOSION LIMITS IN AIR (% BY VOLUME): NOT EXPLOSIVE

EXTINGUISHING MEDIA: NO SPECIAL MEDIA REQUIRED

FIRE FIGHTING PROCEDURES: NO SPECIAL FIRE FIGHTING PROCEDURES REQUIRED

UNUSUAL FIRE & EXPLOSION HAZARDS: NOT COMBUSTIBLE

SECTION 6 – ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE A MATERIAL IS SPILLED:
Clean up in accordance with all applicable regulations. Absorb spillage with non- combustible, absorbent material. For waste disposal, see Section 13.

SECTION 7 – HANDLING & STORAGE

PRECAUTIONS TO BE TAKEN DURING STORAGE AND HANDLING:
Good industrial hygiene practice requires that exposure be maintained below the TLV. This is preferably achieved through the provision of adequate ventilation. When exposure cannot be adequately controlled in this way, personal respiratory protection should be employed.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

RESPIRATORY PROTECTION AND SPECIAL VENTILATION REQUIREMENTS: NONE REQUIRED

OTHER PROTECTIVE EQUIPMENT (GLOVES, GOGGLES, ETC.): NONE REQUIRED

WORK / HYGIENE PRACTICES: NONE REQUIRED

ENGINEERING CONTROLS: NONE REQUIRED

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: N/A

MELTING POINT: N/A

VAPOR PRESSURE: N/A

SPECIFIC VAPOR DENSITY (AIR=1): N/A

SPECIFIC GRAVITY: N/A

SOLUBILITY IN WATER: N/A

REACTIVITY IN WATER: NON-REACTIVE

While we believe that the data contained herein is factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data is not to be taken as a warranty or representation for which we assume legal responsibility. It is offered solely for your consideration and verification. Any use of this data and information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations.

SECTION 10 – STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION PRODUCTS: NONE

STABILITY: STABLE CONDITIONS TO AVOID: NONE

INCOMPATIBILITY (MATERIALS TO AVOID): NONE

HAZARDOUS DECOMPOSITION PRODUCTS: NONE

SECTION 11 – TOXICOLOGICAL INFORMATION

ACUTE EFFECTS ASSOCIATED WITH USE OF THIS MATERIAL: NONE EXPECTED
The summated LD50 is 21400 mg/kg.
The summated LC50 is 41684 mg/cubic meter.
This product is not considered to be a known or suspected human carcinogen by NTP, IARC or OSHA (see section 3)

SECTION 12 – ECOLOGICAL INFORMATION

NO HARMFUL EFFECTS KNOWN OTHER THAN THOSE ASSOCIATED WITH SUSPENDED INERT SOLIDS IN WATER.

SECTION 13 – DISPOSAL CONSIDERATIONS

RCRA HAZARD CLASS (40 CFR 261):
THIS PRODUCT IS NOT CLASSIFIED AS A HAZARDOUS WASTE.

WASTE DISPOSAL METHOD:
DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

SECTION 14 – TRANSPORTATION INFORMATION

U.S. DOT (49 CFR 172.101): THIS IS NOT A HAZARDOUS MATERIAL AS CLASSIFIED BY CFR 172.101.

SECTION 15 – REGULATORY INFORMATION

CONTENTS OF THIS SDS COMPLY WITH OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200
EPA SARA TITLE III CHEMICAL LISTINGS
NONE

SECTION 302.4 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355): NONE

SECTION 313 TOXIC CHEMICALS (40 CFR 372): NONE

While we believe that the data contained herein is factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data is not to be taken as a warranty or representation for which we assume legal responsibility. It is offered solely for your consideration and verification. Any use of this data and information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations.

INTERNATIONAL REGULATIONS

CANADIAN WHMIS:
THIS PRODUCT IS A CONTROLLED PRODUCT UNDER CANADA'S WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM.

IT CONTAINS THE FOLLOWING TOXIC OR HIGHLY TOXIC MATERIALS:

FERRIC OXIDE
PIGMENT RED 2 DISPERSION

SUPPLEMENTAL STATE COMPLIANCE INFORMATION

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) LISTED UNDER NEW JERSEY'S RIGHT TO KNOW PROGRAM:

AMMONIUM HYDROXIDE
PIGMENT RED 101
PIGMENT RED 2 DISPERSION

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) REQUIRING NOTIFICATION TO THE STATE OF WASHINGTON UNDER THEIR CHILDREN'S SAFE PRODUCTS ACT:

NONE

Under CPSC's consumer product regulations (16CFR1500.3 and 150014), this product has the following required acute and chronic hazard labeling:

NONE

SECTION 16 – OTHER INFORMATION

ALL INFORMATION THE SAME FOR ALL COLORS AND SIZES.

THIS PRODUCT DOES NOT CONTAIN EGG, DAIRY, WHEAT, GLUTEN, SOY OR PEANUT PRODUCTS, BY-PRODUCTS OR DERIVATIVES.

THIS PRODUCT DOES NOT CONTAIN LATEX MATERIALS OR ANIMAL DERIVED INGREDIENTS.

While we believe that the data contained herein is factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data is not to be taken as a warranty or representation for which we assume legal responsibility. It is offered solely for your consideration and verification. Any use of this data and information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations.

SAFETY DATA SHEET (SDS)

MATERIAL NAME: **CHROMATEMP ARTISTS' TEMPERA PAINT** LAST REVISION: **12/16/2015**

SECTION 1 – IDENTIFICATION

Material Name
CHROMATEMP ARTISTS' TEMPERA PAINT

Product Number
Various
(All information the same for all colors and sizes.)

Manufacturer Information
Chroma, Inc.
Airport Industrial Park
205 Bucky Drive
Lititz, Pennsylvania 17543
U.S.A.
Phone: 717-626-8866; 1-800-257-8278
Fax: 717-626-9292
Email: jhirneisen@chromaonline.com; infousa@chromaonline.com

For Transportation Emergencies Only: 1-800-257-8278
For Health Emergencies Call the Poison Control Center: 1-888-516-2502
Seek medical assistance for further treatment, observation and support, if necessary.

SECTION 2 – HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

There are no GHS label elements.

PRIMARY ROUTES OF ENTRY: INHALATION, INGESTION, EYE, SKIN

EFFECTS AND SYMPTOMS OF ACUTE EXPOSURE: NONE EXPECTED

EFFECTS AND SYMPTOMS OF CHRONIC EXPOSURE: NONE EXPECTED

CARCINOGEN LISTING: NTP: **NO** IARC: **NO** OSHA: **NO**

SEE SECTION 3 FOR COMPONENTS AFFECTED

MEDICAL CONDITIONS USUALLY AGGRAVATED BY OVER EXPOSURE TO THIS PRODUCT: NONE

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS #	PEL/TLV (MG/M#)	Max % Weight	NTP	IARC
NONE					

While we believe that the data contained herein is factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data is not to be taken as a warranty or representation for which we assume legal responsibility. It is offered solely for your consideration and verification. Any use of this data and information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations.

SECTION 4 – FIRST AID MEASURES

FIRST AID MEASURES: NONE REQUIRED

NO ACUTE HEALTH EFFECTS EXPECTED.

SECTION 5 – FIRE FIGHTING MEASURES

FLASH POINT (METHOD): N/A AUTOIGNITION TEMPERATURE: N/A

EXPLOSION LIMITS IN AIR (% BY VOLUME): NOT EXPLOSIVE

EXTINGUISHING MEDIA: NO SPECIAL MEDIA REQUIRED

FIRE FIGHTING PROCEDURES: NO SPECIAL FIRE FIGHTING PROCEDURES REQUIRED

UNUSUAL FIRE & EXPLOSION HAZARDS: NOT COMBUSTIBLE

SECTION 6 – ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE A MATERIAL IS SPILLED:
Clean up in accordance with all applicable regulations. Absorb spillage with non- combustible, absorbent material. For waste disposal, see Section 13.

SECTION 7 – HANDLING & STORAGE

PRECAUTIONS TO BE TAKEN DURING STORAGE AND HANDLING:
Good industrial hygiene practice requires that exposure be maintained below the TLV. This is preferably achieved through the provision of adequate ventilation. When exposure cannot be adequately controlled in this way, personal respiratory protection should be employed.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

RESPIRATORY PROTECTION AND SPECIAL VENTILATION REQUIREMENTS: NONE REQUIRED

OTHER PROTECTIVE EQUIPMENT (GLOVES, GOGGLES, ETC.): NONE REQUIRED

WORK / HYGIENE PRACTICES: NONE REQUIRED

ENGINEERING CONTROLS: NONE REQUIRED

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: N/A MELTING POINT: N/A

VAPOR PRESSURE: N/A

SPECIFIC VAPOR DENSITY (AIR=1): N/A SPECIFIC GRAVITY: N/A

SOLUBILITY IN WATER: N/A REACTIVITY IN WATER: NON-REACTIVE

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SECTION 10 – STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION PRODUCTS: NONE

STABILITY: STABLE CONDITIONS TO AVOID: NONE

INCOMPATIBILITY (MATERIALS TO AVOID): NONE

HAZARDOUS DECOMPOSITION PRODUCTS: NONE

SECTION 11 – TOXICOLOGICAL INFORMATION

ACUTE EFFECTS ASSOCIATED WITH USE OF THIS MATERIAL: NONE EXPECTED
The summated LD50 is 21400 mg/kg.
The summated LC50 is 41684 mg/cubic meter.
This product is not considered to be a known or suspected human carcinogen by NTP, IARC or OSHA (see section 3)

SECTION 12 – ECOLOGICAL INFORMATION

NO HARMFUL EFFECTS KNOWN OTHER THAN THOSE ASSOCIATED WITH SUSPENDED INERT SOLIDS IN WATER.

SECTION 13 – DISPOSAL CONSIDERATIONS

RCRA HAZARD CLASS (40 CFR 261):
THIS PRODUCT IS NOT CLASSIFIED AS A HAZARDOUS WASTE.

WASTE DISPOSAL METHOD:
DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

SECTION 14 – TRANSPORTATION INFORMATION

U.S. DOT (49 CFR 172.101): THIS IS NOT A HAZARDOUS MATERIAL AS CLASSIFIED BY CFR 172.101.

SECTION 15 – REGULATORY INFORMATION

CONTENTS OF THIS SDS COMPLY WITH OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200
EPA SARA TITLE III CHEMICAL LISTINGS
NONE

SECTION 302.4 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355): NONE

SECTION 313 TOXIC CHEMICALS (40 CFR 372): NONE

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INTERNATIONAL REGULATIONS

CANADIAN WHMIS:
THIS PRODUCT COMPLIES WITH CANADA'S WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM.

IT CONTAINS NO TOXIC OR HIGHLY TOXIC MATERIALS

SUPPLEMENTAL STATE COMPLIANCE INFORMATION

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) LISTED UNDER NEW JERSEY'S RIGHT TO KNOW PROGRAM:

AMMONIUM HYDROXIDE

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) REQUIRING NOTIFICATION TO THE STATE OF WASHINGTON UNDER THEIR CHILDREN'S SAFE PRODUCTS ACT:

NONE

Under CPSC's consumer product regulations (16CFR1500.3 and 150014), this product has the following required acute and chronic hazard labeling:

NONE

SECTION 16 – OTHER INFORMATION

ALL INFORMATION THE SAME FOR ALL COLORS AND SIZES.

THIS PRODUCT DOES NOT CONTAIN EGG, DAIRY, WHEAT, GLUTEN, SOY OR PEANUT PRODUCTS, BY-PRODUCTS OR DERIVATIVES.

THIS PRODUCT DOES NOT CONTAIN LATEX MATERIALS OR ANIMAL DERIVED INGREDIENTS.

While we believe that the data contained herein is factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data is not to be taken as a warranty or representation for which we assume legal responsibility. It is offered solely for your consideration and verification. Any use of this data and information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations.

Safety Data Sheet

Chromatography Solvent (Methanol)

CAROLINA®
www.carolina.com

Section 1 Product Description

Product Name: Chromatography Solvent (Methanol)
Recommended Use: Science education applications
Synonyms: N/A
Distributor: Carolina Biological Supply Company
2700 York Road, Burlington, NC 27215
1-800-227-1150
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

DANGER



Highly flammable liquid and vapor. Harmful in contact with skin. Causes damage to organs.

GHS Classification:
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1, Flammable Liquid Category 2, Acute Toxicity - Dermal Category 4

Other Safety Precautions: IF exposed: Call a POISON CENTER or doctor/physician.

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%
Water	7732-18-5	74
Methanol	67-56-1	25
Potassium Phosphate, Dibasic	7758-11-4	1

Section 4 First Aid Measures

Emergency and First Aid Procedures
Inhalation: In case of accident by inhalation: remove casualty to fresh air and keep at rest.
Eyes: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin Contact: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse.

Ingestion: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 5 Firefighting Procedures

Extinguishing Media: Use dry chemical, CO2 or appropriate foam.
Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards: Vapors may travel back to ignition source. Closed Containers exposed to heat may explode. Fire or excessive heat may produce hazardous decomposition products.
Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

Section 6 Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.
Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Shut off ignition sources; including electrical equipment and flames. Do not allow smoking in the area.

Section 7 Handling and Storage

Handling: Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/.../ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do no eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/vapor. Do not get in eyes, on skin, or on clothing. Retained residue may make empty containers hazardous; use caution.

Storage: Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up. Keep container tightly closed in a cool, well-ventilated place.

Storage Code: Red - Flammables. Store in approved flammable containers. Store away from oxidizing materials.

Section 8 Protection Information

	ACGIH		OSHA PEL	
Chemical Name	(TWA)	(STEL)	(TWA)	(STEL)
Methanol	200 ppm TWA	250 ppm STEL	200 ppm TWA; 260 mg/m3 TWA	N/A

Control Parameters

Engineering Measures: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

Personal Protective Equipment (PPE): Lab coat, apron, eye wash, safety shower.

Respiratory Protection: No respiratory protection required under normal conditions of use. Wear a NIOSH approved respirator if levels above the exposure limits are possible.

Respirator Type(s): NIOSH approved air purifying respirator with organic vapor cartridge and HEPA filter.

Eye Protection: Wear chemical splash goggles when handling this product. Have an eye wash station available.

Skin Protection: Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves: Nitrile, Polyvinyl chloride, Natural rubber, Neoprene

Section 9 Physical Data

Formula: N/A
Molecular Weight: N/A
Appearance: Colorless
Odor: Moderate Alcohol Odor
Odor Threshold: No data available
pH: No data available
Melting Point: -98 C
Boiling Point: 65 C
Flash Point: 11 C
Flammable Limits in Air: 7.3% 36%

Vapor Pressure: 96 mm at 20 °C
Evaporation Rate (BuAc=1): 4.6
Vapor Density (Air=1): 1.11
Specific Gravity: 0.79
Solubility in Water: Soluble
Log Pow (calculated): No data available
Autoignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: No data available
Percent Volatile by Volume: 99%

Section 10 Reactivity Data

Reactivity: No data available
Chemical Stability: Stable under normal conditions.
Conditions to Avoid: Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible Materials: Water-reactive materials. Acids, Strong oxidizing agents, Strong reducing agents, Magnesium
Hazardous Polymerization: Will not occur

Section 11 Toxicity Data

Routes of Entry Inhalation, ingestion, eye or skin contact.
Symptoms (Acute): N/A
Delayed Effects: No data available

Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Water	7732-18-5	Oral LD50 Rat 90000 mg/kg		
Methanol	67-56-1	Oral LD50 Mouse 7300 mg/kg		INHALATION LC50 Rat 64000 ppm

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Methanol	67-56-1	Not listed	Not listed	Not listed

Chronic Effects:
Mutagenicity: No evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: No evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: See Section 2
Chronic: Not listed as a carcinogen by IARC, NTP or OSHA.

Section 12 Ecological Data

Overview: This material is not expected to be harmful to the ecology.
Mobility: No data
Persistence: Biodegradation
Bioaccumulation: No data
Degradability: No data
Other Adverse Effects: No data

Chemical Name	CAS Number	Eco Toxicity
Water	7732-18-5	No data available
Methanol	67-56-1	96 HR LC50 PIMEPHALES PROMELAS > 100 MG/L [STATIC]

Section 13 Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s): Not Determined

Section 14 Transport Information

Ground - DOT Proper Shipping Name:
UN1230, Methanol, 3, PG II

Air - IATA Proper Shipping Name:
Not regulated for air transport by IATA.

Safety Data Sheet

Section 15 Regulatory Information

TSCA Status: All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Methanol	67-56-1	Methanol	No	5000 lb final RQ; 2270 kg final RQ	No	No

California Prop 65: WARNING: This product contains a chemical known to the state of California to cause cancer, birth defects or other reproductive harm.

Section 16 Additional Information

Revised: 09/03/2014 **Replaces: 09/03/2014** **Printed: 09-11-2014**

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstract Service Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation
IARC	International Agency for Research on Cancer
N/A	Not Available
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
IDLH	Immediately dangerous to life and health

Section 1 Chemical Product and Company Information

ward's science
5100 West Henrietta Rd
PO Box 92912
Rochester, NY 14692-9012
Tel: (800) 962-2660

CHEMTREC 24 Hour Emergency
Phone Number (800) 424-9300
For laboratory use only.
Not for drug, food or household use.

Product	**CHROMIUM(III) NITRATE**
Synonyms	Chromic Nitrate

Section 2 Hazards Identification

Signal word: DANGER
Pictograms: GHS03 / GHS05 / GHS07
Target organs: Respiratory tract, Liver, Kidneys



GHS Classification:
Oxidizing solid (Category 3)
Skin irritation (Category 2)
Eye irritation (Category 2A)

GHS Label information: Hazard statement:
H272: May intensify fire; oxidizer.
H315: Causes skin irritation.
H319: Causes serious eye irritation.

Precautionary statement:
P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220: Keep away from clothing/incompatible/combustible materials.
P221: Take any precaution to avoid mixing with combustibles.
P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P370+P378: In case of fire: Use flooding amounts of water to extinguish.
P302+P352: IF ON SKIN: Wash with plenty of water and soap.
P332+P313: If skin irritation occurs: Get medical attention.
P362+P364: Take off contaminated clothing and wash it before reuse.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER or doctor.
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65: This product contains a chemical known to the State of California to cause cancer or reproductive toxicity.

Section 3 Composition/ Information on Ingredients

Chemical Name	CAS #	%	EINECS
Chromium nitrate	7789-02-8	100%	236-921-1 [anhydrous]

Section 4 First Aid Measures

INGESTION: HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: CAUSES SERIOUS EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: CAUSES SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Use flooding amounts of water to extinguish. Do not use dry chemicals or foams. CO_2 or Halon® may provide limited control.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Recover for reuse if not contaminated. Remove all sources of ignition. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

(2012 EMERGENCY RESPONSE GUIDEBOOK, (PHH50-ERG2012), GUIDE # 141)

Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 Exposure Controls / Personal Protection

Exposure Limits:

Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Chromium(III) inorganic compounds, as Cr	TWA: 0.5 mg/m^3(A4)	TWA: 0.5 mg/m^3	TWA: 0.5 mg/m^3

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Appearance: Solid. Deep violet crystals
Odor: No odor
Odor threshold: Data not available
pH: Data not available
Melting / Freezing point: 60°C (140°F)
Boiling point: Data not available
Flash point: Data not available
Evaporation rate (= 1): Data not available
Flammability (solid/gas): Data not available
Explosion limits: Lower / Upper: Data not available
Vapor pressure (mm Hg): Negligible
Vapor density (Air = 1): Data not available
Relative density (Specific gravity): 1.85
Solubility(ies): Soluble in water
Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: 100°C (212°F)
Viscosity: Data not available
Molecular formula: $Cr(NO_3)_3 \cdot 9H_2O$
Molecular weight: 400.15

Section 10 Stability & Reactivity

Chemical stability: Stable
Hazardous polymerization: Will not occur.
Conditions to avoid: Excessive temperatures.

Incompatible materials: Aluminium and magnesium metals. Easily oxidizable materials such as esters and ethers. May ignite organic materials on contact.

Hazardous decomposition products: Nitrogen oxides, chromium dust and/or fume.

Section 11 Toxicological Information

Acute toxicity: Oral-rat LD50: 3250 mg/kg
Skin corrosion/irritation: Data not available
Serious eye damage/irritation: Data not available
Respiratory or skin sensitization: Data not available
Germ cell mutagenicity: Data not available
Carcinogenity: Data not available
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
IARC classified: Group 3: Not classifiable as to its carcinogenicity to humans. [Chromium compounds]
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Ca Prop 65: This product contains a chemical known to the State of California to cause cancer or reproductive toxicity. [Chromium compounds]
Reproductive toxicity: Data not available
STOT-single exposure: Data not available
STOT-repeated exposure: Data not available
Aspiration hazard: Data not available
Potential health effects:
Inhalation: Inhalation may cause cough and sore throat.
Ingestion: Ingestion causes abdominal pain, diarrhea, nausea, and vomiting.
Skin: Contact with skin causes irritation.
Eyes: Contact with eyes causes serious eye irritation.
Signs and symptoms of exposure: Exercise appropriate procedures to minimize potential hazards.
Additional information: RTECS #: GB6300000

Section 12 Ecological Information

Toxicity to fish: No data available
Toxicity to daphnia and other aquatic invertebrates: No data available
Toxicity to algae: No data available
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
PBT and vPvB assessment: No data available
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number: UN2720
Shipping name: Chromium nitrate
Hazard class: 5.1
Packing group: III
Reportable Quantity: No
Marine pollutant: No
Exceptions: Limited quantity equal to or less than 5 Kg
2012 ERG Guide # 141

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	WHMIS Classification
Chromium nitrate (CAS # 13548-38-4)	Listed	Not listed	Not listed	Listed	Not listed	C

Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Revision Date: March 7, 2014 **Supercedes:** March 7, 2014

FLINN SCIENTIFIC, INC.
Safety Data Sheet (SDS)

SDS #: 241.00
Revision Date: March 25, 2014

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Chromium Potassium Sulfate

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261
CHEMTREC Emergency Phone Number: (800) 424-9300

Signal Word **WARNING**

Pictograms



SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Acute toxicity, oral and inhalation (Category 5). May be harmful if swallowed or inhaled (H303 +H333).

Hazard class: Skin and serious eye damage, corrosion or irritation (Category 2, 2B). Causes skin and eye irritation (H315+H320).

SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Chromium potassium sulfate, dodecahydrate	7788-99-0	$CrK(SO_4)_2 \cdot 12H_2O$	499.43	
Synonyms: Chromium(III) potassium sulfate; Chrome alum; Chromic potassium sulfate				

SECTION 4 — FIRST AID MEASURES

If exposed or concerned: Get medical advice or attention (P308+P313)
If inhaled: Remove victim to fresh air in a position comfortable for breathing (P304+P340).
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338). **If eye irritation persists:** Get medical advice or attention (P337+P313).
If on skin: Rinse cautiously with water for several minutes (P351).
If swallowed: Rinse mouth. Call a POISON CENTER or physician if you feel unwell.

SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable solid.
When heated to decomposition, may emit toxic fumes.
In case of fire: Use a tri-class dry chemical fire extinguisher.

NFPA CODE
None established

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Sweep up the spill, place in a sealed bag or container, and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

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SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Inorganic #2. Store with acetates, halides, sulfates, sulfites, thiosulfates and phosphates. Store in a cool, dry place. Store in a Flinn Chem-Saf™ bag.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling (P264).
Exposure guidelines: PEL 0.5 mg/m^3 (OSHA); TLV 0.5 mg/m^3 (ACGIH)

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Red-violet crystals. Odorless.
Soluble: Water

Melting point: 89 °C
Specific gravity: 1.8

SECTION 10 — STABILITY AND REACTIVITY

Avoid heat.
Shelf life: Fair to poor, efflorescent. See Section 7 for further information.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Irritant.
Chronic effects: N.A.
Target organs: Skin.

ORL-RAT LD_{50}: 3530 mg/kg
IHL-RAT LC_{50}: N.A.
SKN-RBT LD_{50}: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply before proceeding.
Flinn Suggested Disposal Method #27f is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Not regulated. Hazard class: N/A. UN number: N/A.

N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

TSCA-listed, EINECS-listed (233-401-6).

SECTION 16 — OTHER INFORMATION

This Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific, Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

Consult your copy of the *Flinn Science Catalog/Reference Manual* for additional information about laboratory chemicals.

Revision Date: March 25, 2014

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FLINN SCIENTIFIC, INC.
Safety Data Sheet (SDS)

SDS #: 244.00
Revision Date: March 21, 2014

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Citric Acid

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261
CHEMTREC Emergency Phone Number: (800) 424-9300

Signal Word **WARNING**

Pictograms



SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Skin and serious eye damage, corrosion or irritation (Category 2, 2B). Causes skin and eye irritation (H315+H320).

SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Citric acid anhydrous	77-92-9	$C_6H_8O_7$	192.14	
Synonym: 2-Hydroxy-1,2,3-propanetricarboxylic acid				

SECTION 4 — FIRST AID MEASURES

Get medical advice or attention if skin or eye irritation persist (P313+P337+P332).
If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing. (P305+P351+P338). **If on skin:** Wash with plenty of water (P302+P352). Take off contaminated clothing and wash before reuse (P362).
If swallowed: Rinse mouth. Call a POISON CENTER or physician if you feel unwell.

SECTION 5 — FIRE FIGHTING MEASURES

Combustible solid.
Flash point: 155 °C Autoignition Temperature: 345 °C
When heated to decomposition, may emit toxic fumes.
In case of fire: Use a tri-class dry chemical fire extinguisher.

NFPA CODE
None established

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Wipe up the spill, place in a sealed bag or container, and dispose. Wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

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SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Organic #1. Store with acids, anhydrides and peracids.
Store in a cool, dry place. Store in a Flinn Chem-Saf™ bag.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling (P264).

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

White granules. Odorless.
Soluble: Water, alcohol, and ether

Boiling point: 310 °C
Melting point: 153 °C
Specific gravity: 1.665

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with oxidizers, bases, and reducing agents.
Shelf life: Poor, efflorescent. See Section 7 for further information.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Eye and skin irritant.
Chronic effects: N.A.
Target organs: Eyes, skin.

ORL-RAT LD_{50}: 3g/kg
IHL-RAT LC_{50}: N.A.
SKN-RBT LD_{50}: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply before proceeding.
Flinn Suggested Disposal Method #26a is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Not regulated. Hazard class: N/A. UN number: N/A.

N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

TSCA-listed, EINECS-listed (201-069-1).

SECTION 16 — OTHER INFORMATION

This Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific, Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

Consult your copy of the *Flinn Science Catalog/Reference Manual* for additional information about laboratory chemicals.

Revision Date: March 21, 2014

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Safety Data Sheet

Citric Acid, Anhydrous

CAROLINA®
www.carolina.com

Section 1 Product Description

Product Name:	Citric Acid, Anhydrous
Recommended Use:	Science education applications
Synonyms:	2-Hydroxy-1,2,3-propanetricarboxylic Acid
Distributor:	Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215-3398
Chemical Information:	800-227-1150 (8am-5pm (ET) M-F)
Chemtrec:	800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

WARNING



Causes serious eye irritation.

GHS Classification:
Serious Eye Damage/Eye Irritation Category 2A, Skin Corrosion/Irritation Category 3

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%
Citric Acid, Anhydrous	77-92-9	100

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation:	In case of accident by inhalation: remove casualty to fresh air and keep at rest.
Eyes:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact:	After contact with skin, wash immediately with plenty of water.
Ingestion:	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 5 Firefighting Procedures

Extinguishing Media:	Use dry chemical, CO2 or appropriate foam.
Fire Fighting Methods and Protection:	Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards:	Fire or excessive heat may produce hazardous decomposition products.
Hazardous Combustion Products:	Carbon dioxide, Carbon monoxide

Section 6 Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled:	No health affects expected from the clean-up of this material if contact can be avoided. Follow personal protective equipment recommendations found in Section 8 of this MSDS Av oid the generation of dusts during clean-up. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

Safety Data Sheet

Section 7 Handling and Storage

Handling: Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Storage: Keep container tightly closed in a cool, well-ventilated place.
Storage Code: Green - general chemical storage

Section 8 Protection Information

	ACGIH		OSHA PEL	
Chemical Name	(TWA)	(STEL)	(TWA)	(STEL)
Citric Acid	N/A	N/A	N/A	N/A

Control Parameters

Engineering Measures: No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.
Personal Protective Equipment (PPE): Lab coat, apron, eye wash, safety shower.
Respiratory Protection: No respiratory protection required under normal conditions of use.
Respirator Type(s): NIOSH approved air purifying respirator with dust/mist filter.
Eye Protection: Wear chemical splash goggles when handling this product. Have an eye wash station available.
Skin Protection: Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.
Gloves: Butyl rubber, Natural latex,, Neoprene, Nitrile, Polyvinyl chloride

Section 9 Physical Data

Formula: C6H8O7
Molecular Weight: 192.13
Appearance: Colorless to White Crystalline Solid
Odor: None
Odor Threshold: No data available
pH: 2.1, conc: 0.1 M (solution)
Melting Point: 153 C
Boiling Point: No data available
Flash Point: No data available
Flammable Limits in Air: No data available

Vapor Pressure: 1.7x10-8 mm Hg @ 25 C (est)
Evaporation Rate (BuAc=1): No data available
Vapor Density (Air=1): No data available
Specific Gravity: 1.665
Solubility in Water: Soluble
Log Pow (calculated): -1.72
Autoignition Temperature: 1010 - 1011 C
Decomposition Temperature: 175 C
Viscosity: No data available
Percent Volatile by Volume: No data available

Section 10 Reactivity Data

Reactivity: Not generally reactive under normal conditions.
Chemical Stability: Stable under normal conditions.
Conditions to Avoid: Exposure to moisture
Incompatible Materials: Strong oxidizing agents, Strong reducing agents, Metals, Metal Nitrates, Caustics (bases)
Hazardous Decomposition Products: Carbon oxides
Hazardous Polymerization: Will not occur

Section 11 Toxicity Data

Routes of Entry Inhalation and ingestion.
Symptoms (Acute): No data available, Hypotension, Hyperkalemia, Metabolic Acidosis
Delayed Effects: No data available

Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Citric Acid, Anhydrous	77-92-9	ORAL LD50 Rat 3000 mg/kg	Not applicable	Not applicable

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Citric Acid, Anhydrous	77-92-9	Not listed	Not listed	Not listed

Chronic Effects:

Mutagenicity: No evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: No evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: See Section 2
Chronic: Not listed as a carcinogen by IARC, NTP or OSHA.

Section 12 Ecological Data

Overview: This material is not expected to be harmful to the ecology.
Mobility: This material is expected to have very high mobility in soil. It does not absorb to most soil types.
Persistence: Dissolved into water, Biodegradation
Bioaccumulation: Bioconcentration is not expected to occur.
Degradability: Biodegrades quickly.
Other Adverse Effects: No data

Chemical Name	CAS Number	Eco Toxicity
Citric Acid, Anhydrous	77-92-9	96 HR LC50 LEPOMIS MACROCHIRUS 1516 MG/L [STATIC] 72 HR EC50 DAPHNIA MAGNA 120 MG/L

Section 13 Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s): Not Determined

Section 14 Transport Information

Ground - DOT Proper Shipping Name:
Not regulated for transport by US DOT.

Air - IATA Proper Shipping Name:
Not regulated for air transport by IATA.

Section 15 Regulatory Information

TSCA Status: All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Citric Acid, Anhydrous	77-92-9	No	No	No	No	No

Section 16 Additional Information

Revised: 06/20/2013 **Replaces: 01/24/2013** **Printed: 06-21-2013**

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstract Service Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation
IARC	International Agency for Research on Cancer
N/A	Not Available
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
IDLH	Immediately dangerous to life and health

SDS No.: CC0335

SAFETY DATA SHEET

GENERAL STORAGE CODE GREEN

Section 1 Chemical Product and Company Information

ward's science
5100 West Henrietta Rd
PO Box 92912
Rochester, NY 14692-9012
Tel: (800) 962-2660

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300
For laboratory use only.
Not for drug, food or household use.

Product	**CITRIC ACID, MONOHYDRATE**
Synonyms	2-Hydroxy-1,2,3-Propane Tricarboxylic Acid

Section 2 Hazards Identification

This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.

Signal word: WARNING
Pictograms: GHS07
Target organs: None known



GHS Classification:
Eye irritation (Category 2)

GHS Label information: Hazard statement(s):
H319: Causes serious eye irritation.

Precautionary statement(s):
P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical attention.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Citric acid, monohydrate	5949-29-1	100%	201-069-1 (anhydrous)

Section 4 First Aid Measures

INGESTION: Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: CAUSES IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Recover for use if not contaminated. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Minimize dust generation.

Section 8 Exposure Controls / Personal Protection

Exposure Limits:

Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Citric acid	Not listed	Not listed	Not listed

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Appearance: Solid, White, deliquescent crystals
Odor: No odor.
Odor threshold: Data not available
pH: Unknown
Melting / Freezing point: Loses H_2O @ 100°C (212°F)
Boiling point: Decomposes
Flash point: Non-flammable

Evaporation rate (= 1): Not applicable
Flammability (solid/gas): Not applicable
Explosion limits: Lower / Upper: Not applicable
Vapor pressure (mm Hg): Data not available
Vapor density (Air = 1): Data not available
Relative density (Specific gravity): 1.542
Solubility(ies): Soluble in water

Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: Data not available
Viscosity: Not applicable
Molecular formula: $C_6H_8O_7 \cdot H_2O$
Molecular weight: 210.14

Section 10 Stability & Reactivity

Chemical stability: Stable
Hazardous polymerization: Will not occur.
Conditions to avoid: Excessive temperature and heat. Avoid dust formation.

Incompatible materials: Strong bases and oxidizing materials.

Hazardous decomposition products: Carbon oxides.

Section 11 Toxicological Information

Acute toxicity: Oral-rat LD50: 12,000 mg/kg (anhydrous)
Skin corrosion/irritation: Data not available
Serious eye damage/irritation: Rabbit-highly irritating
Respiratory or skin sensitization: Data not available
Germ cell mutagenicity: Data not available
Carcinogenity: Data not available
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity: Data not available
STOT-single exposure: Data not available
STOT-repeated exposure: Data not available
Aspiration hazard: Data not available
Potential health effects:
Inhalation: Inhalation may cause irritation to mucous membranes causing sore throat, coughing and shortness of breath.
Ingestion: Ingestion may cause acute gastrointestinal irritation with abdominal pain.
Skin: Contact may cause irritation.
Eyes: Contact with eyes may cause irritation with redness, pain, possible eye burns, conjunctivitis, ulceration and permanent cloudiness.
Signs and symptoms of exposure: Long term over-exposure may cause damage to tooth enamel.
Additional information: RTECS #: GE7350000 (anhydrous)

Section 12 Ecological Information

Toxicity to fish: Lepomis macrochirus (Fish, Fresh water) LC50: 1,516 mg/l/96 hours (anhydrous)
Toxicity to daphnia and other aquatic invertebrates: Daphnia magna (Crustacea) EC50: ca. 120 mg/l/72 hours (anhydrous)
Toxicity to algae: Scenedesmus quadricauda (Algae) EC3: 640 mg/l/7 days (anhydrous)
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
PBT and vPvB assessment: No data available
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information

UN/NA number: Not applicable
Shipping name: Not Regulated
Hazard class: Not applicable
Packing group: Not applicable
Reportable Quantity: No
Marine pollutant: No
Exceptions: Not applicable
2012 ERG Guide # Not applicable

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	WHMIS Classification
Citric acid, anhydrous	Listed	Not listed	Not listed	Listed	Not listed	 E

Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Revision Date: October 30, 2013 **Supercedes:** September 5, 2013

SAFETY DATA SHEET

Issue Date 19-Mar-2015 **Revision Date** 03-Nov-2020 Rev 5

1. IDENTIFICATION

Product identifier

Product Name **CleanCide Wipes**

Other means of identification

Product Code 3130LG-12, 3130M-12, 3130B-1200, 3130B-400, 3130C-160-CS
Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Hard Surface Disinfecting, Cleaning Wipe. Do not dilute.

Details of the supplier of the safety data sheet

Supplier Address
325 Leffingwell Avenue
Kirkwood, MO 63122

Manufacturer Address
325 Leffingwell Avenue
Kirkwood, MO 63122

Emergency telephone number

Company Phone Number 314-966-4134
US Toll-free: 800-506-1146
Emergency Telephone Chemtrec 24-Hour U.S. Number: (800) 424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status (29CFR1910,1200): Not Hazardous

Acute toxicity - Oral	Not classified Oral LD50 (rat) > 5 g/kg body weight
Acute toxicity - Dermal	Not classified Dermal LD50 (rabbit) > 5 g/kg body weight
Acute toxicity - Inhalation (Vapors)	Not classified LCso > 2.04 mg/L
Serious eye damage/eye irritation	Mildly irritating
Skin sensitization	Not a skin sensitizer

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	CAS No.	Weight-%
Citric Acid	77-92-9	0.6

4. FIRST AID MEASURES

Description of first aid measures

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash skin with soap and water.

Inhalation Remove to fresh air.

Ingestion None under normal use conditions.

Most important symptoms and effects, both acute and delayed

Symptoms None known.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treatments should be based on observed signs /symptoms of distress in the patient. The possibility of overexposure to materials other than this product should be considered.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical
No information available.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions No special precautions are needed in handling this material.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Large (industrial) release: Before attempting clean up. Refer to hazard data given.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container closed.

Incompatible materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Controls None under normal use conditions.

Individual protection measures, such as personal protective equipment

Eye/face protection No special technical protective measures are necessary.

Skin and body protection No special technical protective measures are necessary.

Respiratory protection No protective equipment is needed under normal use conditions.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Wet wipe
Appearance	Clear transparent liquid on white towelettes
Color	Clear transparent liquid on white towelettes
Odor	Fresh
Odor threshold	No information available

Property	**Values**
pH	2.00 - 2.4
Melting point/freezing point	No information available
Boiling point / boiling range	No information available
Flash point	None to boiling
Vapor density	No information available
Specific Gravity	1.010
Water solubility	Complete (100%)

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions
Chemical stability
Stable under recommended storage conditions.
Possibility of Hazardous Reactions
None under normal processing.
Conditions to avoid
Extremes of temperature.
Incompatible materials
None known based on information supplied.
Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Product does not present an acute toxicity hazard based on known or supplied information
Inhalation	No known effect.
Eye contact	Mildly irritating to the eyes.
Skin contact	No known hazard in contact with skin.
Ingestion	No data available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	Not a contact sensitizer (U.S. EPA Health Effects Test Guidelines, OPPTS 870.2600).

12. ECOLOGICAL INFORMATION

Ecotoxicity
No data currently available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Do not reuse container.

14. TRANSPORT INFORMATION

DOT	Not regulated
IATA	Not regulated
IMDG	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
IECSC	Complies

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
IECSC - China Inventory of Existing Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

U.S. EPA Label Information
EPA Pesticide Registration Number 34810-36

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	**Health hazards** 0	**Flammability** 0	**Instability** 0		**Physical and Chemical Properties** -
HMIS	**Health hazards** 0	**Flammability** 0	**Physical hazards** 0		**Personal protection** X

Issue Date 19-Mar-2015
Revision Date 03-Nov-2020

Disclaimer
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

Clear Gear Spray

Version 0.0 SDS Number: 000000011631 Revision Date: 2016.04.19

SECTION 1. IDENTIFICATION

Product name : Clear Gear Spray

Product code : 000000011631

Manufacturer or supplier's details

Company : **Clear Gear**
PO Box 149
Rogersford, PA 19468
USA
Business Telephone 855-862-5490

E-mail address :info@cleargear.com :

Emergency telephone number 855-862-5490

Recommended use of the chemical and restrictions on use

Recommended use : Biocides

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Not a hazardous substance or mixture according to US Regulation 29 CFR 1910.1200

GHS label elements

Not a hazardous substance or mixture according to US Regulation 29 CFR 1910.1200
Based on available data, the classification criteria are not met.Handle in accordance with good industrial hygiene and safety practice.

Precautionary statements : **Prevention:**
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P262 Do not get in eyes, on skin, or on clothing.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P314 Get medical advice/ attention if you feel unwell.
Storage:
P402 + P404 Store in a dry place. Store in a closed container.
P410 + P403 Protect from sunlight. Store in a well-ventilated place.
Disposal:
P501 Dispose of contents/container in accordance with local regulation.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical name	CAS-No.	Concentration (%)
Quaternary ammonium compounds, di-C8-10-alkyldimethyl, chlorides	68424-95-3	< 0.10
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	< 0.10

SECTION 4. FIRST AID MEASURES

If inhaled : Move to fresh air.
If symptoms persist, call a physician.

In case of skin contact : After contact with skin, wash immediately with plenty of soap and water.
In the case of skin irritation or allergic reactions see a physician.

In case of eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

If swallowed : If accidentally swallowed obtain immediate medical attention.
Clean mouth with water and drink afterwards plenty of water.
Do not induce vomiting without medical advice.
Never give anything by mouth to an unconscious person.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Dry powder
Water spray
Foam

Specific hazards during firefighting : Heating or fire can release toxic gas.

Further information : Use water spray to cool unopened containers.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use respirator when performing operations involving potential exposure to vapour of the product.

Environmental precautions

General advice	:	Prevent product from entering drains.
Methods and materials for containment and cleaning up	:	Sweep up or vacuum up spillage and collect in suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	:	Provide sufficient air exchange and/or exhaust in work rooms.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Appropriate engineering controls

Personal protective equipment

Respiratory protection	:	In the case of vapour formation use a respirator with an approved filter.
Hand protection		
Material	:	Nitrile rubber
Rate of permeability	:	> 480 min
Eye protection	:	Tightly fitting safety goggles
Skin and body protection	:	Choose body protection according to the amount and concentration of the dangerous substance at the work place. No special protective equipment required.
Hygiene measures	:	Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	no data available
Odour	:	no data available
Odour Threshold	:	no data available
pH	:	11
Melting point/freezing point	:	no data available
Boiling point/boiling range	:	no data available
Flash point	:	> 93.34 °C

Evaporation rate	:	no data available
Upper explosion limit	:	no data available
Lower explosion limit	:	no data available
Vapour pressure	:	no data available
Relative vapour density	:	no data available
Relative density	:	no data available
Density	:	no data available
Solubility(ies) Water solubility	:	soluble
Partition coefficient: n-octanol/water	:	no data available
Auto-ignition temperature	:	no data available
Decomposition temperature	:	no data available
Viscosity, dynamic	:	no data available
Viscosity, kinematic	:	no data available

SECTION 10. STABILITY AND REACTIVITY

Possibility of hazardous reactions : None known.Stable under normal conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation
Ingestion
Eyes
Skin

Acute toxicity

Acute dermal toxicity (LD50) : > 2,000 mg/kg
Species: Rabbit

Skin corrosion/irritation

Skin irritation : non irritant
Species: Rabbit

Serious eye damage/eye irritation

Eye irritation : minimal irritant
Species: Rabbit

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

Other adverse effects

Additional ecological information : There is no data available for this product.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packaging : Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

IATA Not dangerous goods

UN number : Not applicable
Proper shipping name : Not applicable
Transport hazard class : Not applicable
Packing group : Not applicable
Environmental hazards : no

IMDG Not dangerous goods

UN number : Not applicable
Proper shipping name : Not applicable
Transport hazard class : Not applicable
Packing group : Not applicable
Environmental hazards : Marine pollutant: no

:

ADR Not dangerous goods

UN number : Not applicable
Proper shipping name : Not applicable
Transport hazard class : Not applicable
Packing group : Not applicable
Environmental hazards : no

RID	:	Not dangerous goods
UN number	:	Not applicable
Proper shipping name	:	Not applicable
Transport hazard class	:	Not applicable
Packing group	:	Not applicable
Environmental hazards	:	no
DOT	:	Not dangerous goods
UN number	:	Not applicable
Proper shipping name	:	Not applicable
Transport hazard class	:	Not applicable
Packing group	:	Not applicable
Environmental hazards	:	no
TDG	:	Not dangerous goods
UN number	:	Not applicable
Proper shipping name	:	Not applicable
Transport hazard class	:	Not applicable
Packing group	:	Not applicable
Environmental hazards	:	no
Special precautions for user	:	none
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	:	Not applicable

SECTION 15. REGULATORY INFORMATION

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals.

Signal word	:	CAUTION!
Hazard statements	:	Causes moderate eye irritation. Avoid contact with skin and clothing.
EPA No.	:	6836-152

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 311/312 Hazards : No SARA Hazards

SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

No components are subject to the Pennsylvania Right to know act

New Jersey Right To Know

No components are subject to the New Jersey Right to know act

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16. OTHER INFORMATION

Revision Date : 2016.04.19

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

THE CLOROX COMPANY

SAFETY DATA SHEET

Issuing Date January 5, 2015 **Revision Date** New **Revision Number** 0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name **Clorox® Anywhere Hard Surface™ Daily Sanitizing Spray**

Other means of identification

EPA Registration Number 67619-14

Recommended use of the chemical and restrictions on use

Recommended use Sanitizing spray

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address
The Clorox Company
1221 Broadway
Oakland, CA 94612

Phone: 1-510-271-7000

Emergency telephone number

Emergency Phone Numbers For Medical Emergencies call: 1-800-446-1014
For Transportation Emergencies, call Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

GHS Label elements, including precautionary statements

Emergency Overview

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Appearance Clear, colorless **Physical State** Thin liquid **Odor** Slight bleach

Precautionary Statements - Prevention
None

Precautionary Statements - Response
None

Precautionary Statements - Storage
None

Precautionary Statements - Disposal
None

Hazards not otherwise classified (HNOC)
Not applicable

Unknown Toxicity
None

Other information
No information available

Interactions with Other Chemicals
None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product contains no substances that at their given concentrations are considered to be hazardous to health.

4. FIRST AID MEASURES

First aid measures

General Advice Show this safety data sheet to the doctor in attendance.

Eye Contact Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. If present, remove contact lenses after the first 5 minutes of rinsing, then continue rinsing eye. If irritation occurs, call a poison control center or doctor for further treatment advice.

Skin Contact Rinse skin with plenty of water. If irritation occurs, call a doctor.

Inhalation Move to fresh air. If breathing problems develop, call a doctor.

Ingestion Drink a glassful of water. Call a doctor or poison control center.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects Liquid may cause slight eye irritation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media
CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical

Hazardous Combustion Products
Oxides of carbon.

Explosion Data

Sensitivity to Mechanical Impact No.

Sensitivity to Static Discharge No.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid contact with eyes.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental Precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Absorb and containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin, and clothing. Do not eat, drink, or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool, and well-ventilated place.

Incompatible Products None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product does not contain any ingredients with occupational exposure limits that are at concentrations below their cut-off values/concentrations and that contribute to the hazard classification of the product.

Appropriate engineering controls

Engineering Measures None required.

Individual protection measures, such as personal protective equipment

Eye/Face Protection No special protective equipment required.

Skin and Body Protection No special protective equipment required.

Respiratory Protection No protective equipment is needed under normal use conditions. If irritation is experienced, ventilation and evacuation may be required.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical State	Thin liquid		
Appearance	Clear	**Odor**	Slight bleach
Color	Colorless	**Odor Threshold**	No information available

Property	Values	Remarks/ Method
pH	6.5 - 8.5	None known
Melting/freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
Upper flammability limit	No data available	None known
Lower flammability limit	No data available	None known
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	~1.0	None known
Water Solubility	Complete	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive Properties	Not explosive	
Oxidizing Properties	No data available	

Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	No data available

10. STABILITY AND REACTIVITY

Reactivity

None known.

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
None known based on information supplied.

Incompatible materials
None known.

Hazardous Decomposition Products
None known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information .

Inhalation Exposure to vapor or mist may cause minor irritation to respiratory tract.

Eye Contact May cause slight irritation.

Skin Contact Not irritating.

Ingestion Ingestion of liquid may cause slight irritation to mucous membranes and gastrointestinal tract.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium hypochlorite 7681-52-9	8200 mg/kg (Rat)	>10000 mg/kg (Rabbit)	-

Information on toxicological effects

Symptoms May cause slight redness and tearing of eyes.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium hypochlorite 7681-52-9	-	Group 3	-	-

IARC (International Agency for Research on Cancer)
Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive Toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.
Chronic Toxicity No known effect based on information supplied.
Target Organ Effects Respiratory system, eyes, skin, gastrointestinal tract (GI).

Aspiration Hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document
No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity
No information available.

Persistence and Degradability
No information available.

Bioaccumulation
No information available.

Other adverse effects
No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods
Dispose of in accordance with all applicable federal, state, and local regulations.

Contaminated Packaging
Do not reuse empty containers. Dispose of in accordance with all applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

DOT	Not regulated.
TDG	Not regulated.
ICAO	Not regulated.
IATA	Not regulated
IMDG/IMO	Not regulated

15. REGULATORY INFORMATION

Chemical Inventories

TSCA	All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.
DSL/NDSL	All components are on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CWA (Clean Water Act)
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hypochlorite 7681-52-9	100 lb			X

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Sodium hypochlorite 7681-52-9	100 lb	–	RQ 100 lb final RQ RQ 45.4 kg final RQ

EPA Statement
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION.

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Sodium hypochlorite 7681-52-9	X	X	X	X	

International Regulations

Canada
WHMIS Hazard Class
Non-controlled

16. OTHER INFORMATION

NFPA	Health Hazard	0	Flammability	0	Instability	0	Physical and Chemical Hazards -
HMIS	Health Hazard	0	Flammability	0	Physical Hazard	0	Personal Protection -

Prepared By

Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Preparation/Revision Date January 5, 2015

Revision Note New

Reference 1055018/51630.001

General Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

The Clorox Company

SAFETY DATA SHEET

1. Identification

Product identifier **Clorox Disinfectant Wipes - Fresh Scent**

Other means of identification EPA 5813-79

Document Number: US001094

Recommended use Disinfectant

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name The Clorox Company

Address 1221 Broadway
Oakland, CA 94612
United States

Telephone 1-510-271-7000

E-mail Not available.

Emergency phone number Medical Emergency: 1-800-446-1014
Transportation Emergency: 1-800-424-9300 (Chemtrec)

2. Hazards Identification

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of container in accordance with local, regional, national and international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information This SDS is designed for workplace employees, emergency personnel and for other conditions and situations where there is greater potential for large-scale or prolonged exposure. This SDS is not applicable for consumer use of our products. For consumer use, all precautionary and first aid language is provided on the product label in accordance with the applicable government regulations.

3. Composition/Information on Ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
n-Alkyl (C12, 68%; C14, 32%) Dimethyl Ethylbenzyl Ammonium Chloride		85409-23-0	0.184
n-Alkyl (C14, 60%; C16, 30%; C12, 5%; C18, 5%) Dimethyl Benzyl Ammonium Chloride		53516-76-0	0.184

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

4. First Aid Measures

Inhalation	If breathed in, move person into fresh air.
Skin contact	If on skin, rinse well with water.
Eye contact	IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses if present, after the first 5 minutes, then, continue rinsing eye. Call a poison control center or doctor for treatment advice.
Ingestion	If swallowed, call a Poison Control Center or doctor immediately. DO NOT induce vomiting.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Symptoms may be delayed. Have the product container or label with you when calling a poison control center, doctor, or going for treatment. For further information, call (800) 227-1860
General information	If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. KEEP OUT OF REACH OF CHILDREN AND PETS.

5. Fire Fighting Measures

Suitable extinguishing media	Treat for surrounding material.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Prevent entry into waterways, sewer, basements or confined areas. Pick up and discard towelette. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.

7. Handling and Storage

Precautions for safe handling	Avoid contact with eyes and skin. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. When using do not eat or drink.
Conditions for safe storage, including any incompatibilities	Do not use or store near heat or open flame. Store away from incompatible materials (see Section 10 of the SDS). KEEP OUT OF REACH OF CHILDREN.

8. Exposure Controls/Personal Protection

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection	Not normally required under normal use conditions.
Skin protection	
Hand protection	Not normally required when used as directed. For prolonged use, wear rubber gloves.
Other	Wear appropriate chemical resistant clothing. As required by employer code.

Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).
Thermal hazards	Not applicable.
General hygiene considerations	Wash hands before breaks and immediately after handling the product. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. When using do not eat or drink.

9. Physical and Chemical Properties

Appearance	Clear
Physical state	Liquid.
Form	Liquid saturated on wipe.
Color	clear liquid on a wipe
Odor	Fruity, Apple, Floral
Odor threshold	Not available.
pH	6 - 9 (Liquid)
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Pour point	Not available.
Specific gravity	Not available.
Partition coefficient (n-octanol/water)	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	1 (Liquid)
Solubility(ies)	Wipe is not soluble
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and Reactivity

Reactivity	This product may react with strong oxidizing agents.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	Oxidizers. Acids.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Ammonia. Chlorine gas.

11. Toxicological Information

Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected. Excessive intentional inhalation may cause respiratory tract irritation.
Skin contact	Not expected to be a primary skin irritant.

Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	May cause stomach distress, nausea or vomiting.
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity See below.

Components	**Species**	**Test Results**
n-Alkyl (C12, 68%; C14, 32%) Dimethyl Ethylbenzyl Ammonium Chloride (CAS 85409-23-0)		
Acute		
Dermal		
LD50	Rabbit	2300 mg/kg, ECHA
Inhalation		
LC50	Not available	
Oral		
LD50	Rat	344 mg/kg, ECHA

Skin corrosion/irritation	Not expected to be a primary skin irritant.
Exposure minutes	Not available.
Erythema value	Not available.
Oedema value	Not available.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
Corneal opacity value	Not available.
Iris lesion value	Not available.
Conjunctival reddening value	Not available.
Conjunctival oedema value	Not available.
Recover days	Not available.
Respiratory or skin sensitization	
Respiratory sensitization	Not available.
Skin sensitization	Not available.
Germ cell mutagenicity	Not available.
Carcinogenicity	

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not available.
Specific target organ toxicity - repeated exposure	Not available.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Not available.
Further information	Not available.

12. Ecological Information

Ecotoxicity	Not available.
Persistence and degradability	Not available.
Bioaccumulative potential	Not available.
Mobility in soil	Not available.
Mobility in general	Not available.
Other adverse effects	Not available.

13. Disposal Considerations

Disposal instructions	Review federal, provincial, and local government requirements prior to disposal. Dispose of wipe in trash after use. Do not flush.
Waste from residues / unused products	Not available.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

General

Canada: TDG Proof of Classification:
Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.

Canada: TDG: Not regulated as dangerous goods.

US: DOT: Not regulated as dangerous goods.

IMDG: Not regulated as dangerous goods.

IATA: Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations

This product is NOT known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

EPA 5813-79

PRECAUTIONARY STATEMENTS: HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

PHYSICAL OR CHEMICAL HAZARDS: Do not use or store near heat or open flame.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance	No
SARA 311/312 Hazardous chemical	No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Not regulated.

US state regulations See below

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

California Proposition 65

This product is not subject to warning labeling under the California Proposition 65 regulation.

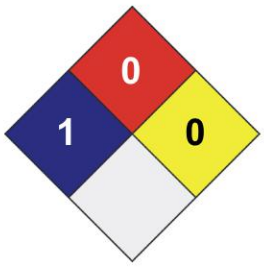
Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0





Disclaimer The information in the safety data sheet was written by Dell Tech Laboratories Ltd. (www.delltech.com) based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

Issue date 26-July-2021

Version # 01

Further information Not available.

Other information For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

Item: Not available

Reference Item: 174096.001

Prepared by: The Clorox Company, 4900 Johnson Drive, Pleasanton, CA 94588, 925-368-6000

HOJA DE DATOS DE SEGURIDAD

1. Identificación

Identificador de producto **Clorox Toallitas desinfectantes - Aroma fresco**

Otros medios de identificación EPA 5813-79

Número de documento: US001094

Uso recomendado Desinfectante

Restricciones recomendadas Ninguno conocido/Ninguna conocida.

Información sobre el fabricante/importador/proveedor/distribuidor

Fabricante

Nombre de la empresa The Clorox Company

Dirección 1221 Broadway
Oakland, CA 94612
Estados Unidos

Teléfono 1-510-271-7000

Correo electrónico No disponible.

Número de teléfono para emergencias Emergencia médica: 1-800-446-1014

Emergencia de transporte: 1-800-424-9300 (Chemtrec)

2. Identificación de riesgos

Riesgos físicos No clasificado.

Peligros para la salud No clasificado.

Peligros para el medio ambiente No clasificado.

Peligros definidos por OSHA No clasificado.

Elementos de la etiqueta

Símbolo de peligro Ninguno.

Palabra de advertencia Ninguno.

Indicación de peligro La mezcla no cumple con los criterios de clasificación.

Consejos de prudencia

Prevención Respete las normas para un manejo correcto de los químicos.

Respuesta Lávese las manos después del uso.

Almacenamiento Consérvese alejado de materiales incompatibles.

Eliminación Eliminar el recipiente conforme a las reglamentaciones local, regional, nacional y internacional.

Peligros no clasificados en otra parte (HNOC, por sus siglas en inglés) Ninguno conocido/Ninguna conocida.

Información suplementaria Esta SDS está diseñada para empleados del lugar de trabajo, personal de emergencia y para otras condiciones y situaciones en las que existe un mayor potencial de exposición a gran escala o prolongada. Esta SDS no es aplicable para el uso por parte del consumidor de nuestros productos. Para el uso del consumidor, todo el lenguaje de precaución y primeros auxilios se proporciona en la etiqueta del producto de acuerdo con la normativa gubernamental aplicable.

3. Composición / Información sobre los ingredientes

Mezclas

Nombre químico	Nombre común y sinónimos	Número CAS	%
n-Alkyl (C12, 68%; C14, 32%) Dimethyl Ethylbenzyl Ammonium Chloride		85409-23-0	0.184
n-Alkyl (C14, 60%; C16, 30%; C12, 5%; C18, 5%) Dimethyl Benzyl Ammonium Chloride		53516-76-0	0.184

Todas las concentraciones se expresan en porcentajes en peso a menos que el componente sea un gas. Las concentraciones de los gases se expresan en por ciento en volumen.

Comentarios sobre la composición	GHS Estados Unidos: El porcentaje exacto (concentración) de composición ha sido retenida como secreto comercial, de conformidad con el párrafo (i) de § 1910.1200.

4. Medidas de primeros auxilios

Inhalación	Si se respira, mueva a la persona al aire libre.
Piel	En caso de contacto con la piel, lave bien con agua.
Ojos	SI ENTRA EN CONTACTO CON LOS OJOS: Mantenga los ojos abiertos y enjuague lenta y suavemente con agua durante 15-20 minutos. Quítese los lentes de contacto, si los tiene, después de los primeros 5 minutos, luego continúe enjuagando los ojos. Llame a un centro de control de intoxicaciones o un médico para obtener consejos sobre el tratamiento.
Ingestión	En caso de ingestión, consultar inmediatamente con el médico o con el centro de control de envenenamiento. NO provoque el vómito.
Síntomas/efectos más importantes, agudos o retardados	El contacto directo con los ojos puede causar una irritación temporal.
Indicación de la necesidad de recibir atención médica inmediata y, en su caso, de tratamiento especial	Proporcione las medidas de apoyo generales y de tratamiento sintomático. Los síntomas pueden retrasarse. Tenga el envase o la etiqueta del producto con usted cuando llame a un centro de control de envenenamiento, doctor, o vaya a recibir tratamiento. Para más información, llame al (800) 227-1860
Información general	En caso de malestar, acuda al médico (si es posible, muéstrele la etiqueta). Muéstrele esta ficha de seguridad al doctor que esté de servicio. Evitar contacto con ojos y piel. MANTÉNGASE FUERA DEL ALCANCE DE LOS NIÑOS Y MASCOTAS.

5. Medidas para combatir incendios

Medio extintor apropiado	Tratar el material circundante.
Medios inadecuados	No utilizar agua a presión, puede extender el incendio.
Riesgos específicos derivados del producto químico	En caso de incendio se pueden formar gases nocivos.
Equipo especial de protección y medias de precaución para los bomberos	Use aparato respiratorio autónomo y traje de protección completo en caso de incendio.
Equipos/instrucciones para la lucha contra incendios	Mueva los recipientes del área del incendio si puede hacerlo sin riesgo.
Métodos específicos	Utilizar procedimientos estándar contra incendiosy considerar los riesgos de otros materiales involucrados.
Riesgos generales de incendio	Ningún riesgo excepcional de incendio o explosión señalado.

6. Medidas de liberación accidental

Precauciones personales, equipo protector y procedimiento de emergencia	Mantenga alejado al personal que no sea necesario. Mantenga alejadas a las personas de la zona de la fuga y en sentido opuesto al viento. Use equipo y ropa de protección apropiados durante la limpieza. No toque los recipientes dañados o el material derramado a menos que esté usando ropa protectora adecuada. Asegure una ventilación apropiada. Las autoridades locales deben ser informadas si los derrames importantes no pueden contenerse. Para consultar la protección personal, véase la sección 8 de la HDS.
Métodos y materiales para la contención y limpieza de vertidos	Evite la entrada en vías acuáticas, alcantarillados, sótanos o áreas confinadas. Recoger y desechar toallita. Para la eliminación de los residuos, ver la Sección 13 de la HDS.
Precauciones para la protección del medio ambiente	No dispersar en el medio ambiente. Impidas nuevos escapes o derrames de forma segura. No verter los residuos al desagüe, al suelo o las corrientes de agua. No eliminar en lagos, arroyos, estanques o aguas públicas

7. Manejo y almacenamiento

Precauciones que se deben tomar para garantizar un manejo seguro	Evitar contacto con ojos y piel. Asegúrese una ventilación eficaz. Use equipo protector personal adecuado. Colada a fondo después de dirigir. Establezca prácticas buenas de higiene industrial para la manipulación de este material. No comer ni beber durante su utilización.
Condiciones de almacenamiento seguro, incluida cualquier incompatibilidad	No usar ni almacenar cerca del fuego o de la llama abierta. Almacenar alejado de materiales incompatibles (véase la Sección 10 de la HDS). MANTÉNGASE FUERA DEL ALCANCE DE LOS NIÑOS.

8. Controles de exposición y protección personal

Valores límites biológicos	No se indican límites de exposición biológica para los componentes.

Controles técnicos apropiados	Debe haber una ventilación general adecuada (típicamente 10 renovaciones del aire por hora). La frecuencia de la renovación del aire debe corresponder a las condiciones. De ser posible, use campanas extractoras, ventilación aspirada local u otras medidas técnicas para mantener los niveles de exposición por debajo de los límites de exposición recomendados. Si no se han establecido ningunos límites de exposición, el nivel de contaminantes suspendidos en el aire ha de mantenerse a un nivel aceptable.
Medidas de protección individual, como equipos de protección personal recomendados	
Protección para los ojos/la cara	Normalmente no es necesario bajo condiciones normales de uso.
Protección de la piel	
Protección para las manos	Requerido no normalmente cuando está utilizado según lo dirigido. Para uso prolongado, use guantes de goma
Otros	Use ropa adecuada resistente a los productos químicos. Como sea requerido por las normas del empleador.
Protección respiratoria	Donde los niveles de la pauta de la exposición pueden ser excedidos, utilice un respirador aprobado de NIOSH. La máscara de respiración deberá ser seleccionada y utilizada bajo la dirección de personal capacitado en salud y seguridad, y en un todo de acuerdo con lo establecido por las pautas y criterios respectivos de OSHA (29 CFR 1910.134), CAN/CSA-Z94.4 y de ANSI sobre protección respiratoria (Z88.2).
Peligros térmicos	No aplicable.
Consideraciones generales sobre higiene	Lávese las manos antes de los descansos e inmediatamente después de manipular la substancia. Seguir siempre buenas medidas de higiene personal, como lavarse después de manejar el material y antes de comer, beber y/o fumar. Rutinariamente lave la ropa de trabajo y el equipo de protección para eliminar los contaminantes. No comer ni beber durante su utilización.

9. Propiedades físicas y químicas

Aspecto	Claro
Estado físico	Líquido.
Estado físico	Líquido saturado en servilleta.
Color	clear liquid on a wipe
Olor	Olor a frutas, Manzana, Floral
Umbral de olor	No disponible.
pH	6 - 9 (líquido)
Punto de fusión/punto de congelación	No disponible.
Punto inicial e intervalo de ebullición	No disponible.
Punto de escurrimiento	No disponible.
Peso específico	No disponible.
Coeficiente de reparto: n-octanol/agua	No disponible.
Punto de inflamabilidad	No disponible.
Tasa de evaporación	No disponible.
Inflamabilidad (sólido, gas)	No aplicable.
Límites superior/inferior de inflamabilidad o explosividad	
Límite inferior de inflamabilidad (%)	No disponible.
Límite superior de inflamabilidad (%)	No disponible.
Límite inferior de explosividad (%)	No disponible.
Límite superior de explosividad (%)	No disponible.
Presión de vapor	No disponible.
Densidad de vapor	No disponible.
Densidad relativa	1 (líquido)
Solubilidad(es)	Toallita no es soluble
Temperatura de autoignición	No disponible.
Temperatura de descomposición	No disponible.

Viscosidad	No disponible.

10. Estabilidad y reactividad

Reactividad	Este producto puede reaccionar con agentes oxidantes fuertes.
Posibilidad de reacciones peligrosas	Ninguno bajo el uso normal.
Estabilidad química	El material es estable bajo condiciones normales.
Condiciones a evitar	No mezclar con otros productos químicos.
Materiales incompatibles	Oxidantes. Ácidos.
Productos de descomposición peligrosos	Pueden incluír y no están limitados a: Óxidos de carbono. Óxidos de nitrógeno. Ammoníaco. Cloro.

11. Información toxicológica

Información sobre las posibles vías de exposición

Inhalación	No se esperan efectos adversos debido a inhalación. La inhalación intencional y excesiva puede causar la irritación del sistema respiratorio.
Piel	No se espera que sea un irritante primario de la piel.
Ojos	El contacto directo con los ojos puede causar una irritación temporal.
Ingestión	Puede causar problemas digestivos, náuseas o vómitos.
Síntomas relacionados con las características físicas, químicas y toxicológicas	El contacto directo con los ojos puede causar una irritación temporal.

Información sobre los efectos toxicológicos

Toxicidad aguda Vea abajo

Componentes	**Especies**	**Resultados de la prueba**
n-Alkyl (C12, 68%; C14, 32%) Dimethyl Ethylbenzyl Ammonium Chloride (CAS 85409-23-0)		
Agudo		
Dérmico		
DL50	conejo	2300 mg/kg, ECHA
Inhalación		
CL50	No disponible	
Oral		
DL50	rata	344 mg/kg, ECHA

Corrosión/irritación cutáneas	No se espera que sea un irritante primario de la piel.
Minutos de exposición	No disponible.
Valor de eritema	No disponible.
Valor del edema	No disponible.
Lesiones oculares graves/irritación ocular	El contacto directo con los ojos puede causar una irritación temporal.
Valor de opacidad corneal	No disponible.
Valor de la lesión del iris	No disponible.
Valor del enrojecimiento conjuntival	No disponible.
Valor del edema conjuntivo	No disponible.
Días de recuperación	No disponible.

Sensibilidad respiratoria o cutánea

Sensibilización respiratoria	No disponible.
Sensibilización cutánea	No disponible.
Mutagenicidad en células germinales	No disponible.

Carcinogenicidad

Monografías del IARC. Evaluación general de la carcinogenicidad

No listado.

OSHA Sustancias específicas reguladas (29 CFR 1910.1001-1052)

No regulado.

Programa Nacional de Toxicología de EUA (NTP). Reporte sobre carcinógenos

No listado.

Toxicidad para la reproducción	No se espera que este producto cause efectos reproductivos o al desarrollo.
Toxicidad sistémica específica de órganos diana - Exposición única	No disponible.
Toxicidad sistémica específica de órganos diana - Exposiciones repetidas	No disponible.
Peligro por aspiración	No representa un peligro de aspiración.
Efectos crónicos	No disponible.
Información adicional	No disponible.

12. Información ecológica

Efectos ecotoxicológicos	No disponible.
Persistencia y degradabilidad	No disponible.
Potencial de bioacumulación	No disponible.
Movilidad en el suelo	No disponible.
Movilidad en general	No disponible.
Otros efectos adversos	No disponible.

13. Consideraciones de eliminación

Instrucciones para la eliminación	Consultar los requerimientos de los gobiernos federales, provinciales y municipales antes de la eliminación. Eliminar la toallita en la basura después del uso. No enjuague.
Residuos/producto no utilizado	No disponible.
Envases contaminados	Ya que los recipientes vacíos pueden contener restos de producto, obsérvense las advertencias indicadas en la etiqueta después de vaciarse el recipiente. Los contenedores vacíos deben ser llevados a un sitio de manejo aprobado para desechos, para el reciclado o eliminación.

14. Información relativa al transporte

General	Canadá: TDG prueba de clasificación: Método de Clasificación: Clasificados según la parte 2, secciones 2,1 – 2,8 del Reglamento de transporte de mercancías peligrosas. En su caso, el nombre del técnico y la clasificación del producto aparecerá debajo. Canada: TDG: No está clasificado como producto peligroso. US: DOT: No está clasificado como producto peligroso. IMDG: No está clasificado como producto peligroso. IATA: No está clasificado como producto peligroso.

15. Información reguladora

Reglamentos federales de EE.UU.

Este producto no se sabe para ser un "producto químico peligroso" según lo definido por OSHA Hazard Communication Standard, 29 CFR 1910,1200.

Este producto químico es un producto pesticida registrado por la Agencia de Protección Ambiental de los Estados Unidos y está sujeta a determinados requisitos de etiquetado bajo la ley federal de pesticidas. Estos requisitos difieren de los criterios de clasificación y la información sobre riesgos necesarios para las fichas de datos de seguridad (FDS) y el lugar de trabajo para las etiquetas de productos químicos sin pesticidas. La información sobre el peligro requerido en la etiqueta del pesticida se reproduce a continuación. La etiqueta del pesticida también incluye otra información importante, incluidas las instrucciones de uso.

Constituye una violación a la ley federal el uso de este producto de una forma contraria a lo indicado en la etiqueta.

EPA 5813-79

PRECAUCIONES DE SEGURIDAD: Peligro para los seres humanos y animales domésticos.

PRECAUCIÓN: Provoca moderada irritación ocular. Evite el contacto con los ojos o ropa. Lavar a fondo con agua y jabón después del uso.

RIESGOS FÍSICOS O QUÍMICOS: No usar ni almacenar cerca del fuego o de la llama abierta.

TSCA Section 12(b) Export Notification (40 CFR 707, Subapartado D) (Notificación de exportación)

No regulado.

Lista de sustancias peligrosas de CERCLA (40 CFR 302.4)

No listado.

SARA Sección 304 Notificación de emergencia sobre la liberación de sustancias

No regulado.

OSHA Sustancias específicas reguladas (29 CFR 1910.1001-1052)

No regulado.

Ley de Enmiendas y Reautorización del Superfondo de 1986 (SARA)

SARA 302 Sustancia extremadamente peligrosa	No
SARA 311/312 Sustancias químicas peligrosas	No

SARA 313 (Reporte TRI, acerca del Inventario de liberación de sustancias tóxicas)

No regulado.

Otras disposiciones federales

Ley de Aire Limpio (CAA), sección 112, lista de contaminantes peligrosos del aire (CPA)

No regulado.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) (Ley de aire limpio, Prevención de liberación accidental)

No regulado.

Ley de Agua Potable Segura (SDWA, siglas en inglés)	No regulado.
Dirección de Alimentos y Medicamentos de los EUA (FDA)	No regulado.
Regulaciones de un estado de EUA	Vea abajo

Sustancias Controladas de California; EUA. Departamento de Justicia, CA (Salud y Seguridad de California, Código de Sección 11100)

No listado.

Proposición 65 de California

Este producto no está sujeto a etiquetado de advertencia según la Preposición 65 del Estado de California.

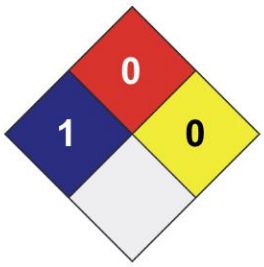
País(es) o región	Nombre del inventario	Listado (sí/no)*
Estados Unidos y Puerto Rico	Inventario de la Ley del Control de Sustancias Tóxicas (TSCA)	No

*"Sí" indica que este producto cumple con los requisitos del inventario administrado por el(los) país(es) responsable(s)

16. Otra información

REFERENCIA	
Severo	4
Serio	3
Moderado	2
Ligera	1
Mínimo	0

Salud	/ 1
Flamabilidad	0
Riescos Físicos	0
Protección Personal	X



Cláusula de exención de responsabilidad

La información de esta hoja de datos de seguridad se ha escritas por Dell Tech Laboratories Ltd. (www.dellltech.com) sobre la base del nivel actual de conocimientos y experiencia disponible. La información aquí contenida fue obtenida de fuentes que se estiman técnicamente precisas y confiables. Si bien se han realizado los máximos esfuerzos posibles a fin de asegurar la total puesta en conocimiento de los riesgos asociados a este producto, como en algunos casos no es posible obtener información, se lo declara expresamente. Dado que las condiciones particulares de uso del producto están más allá del alcance del proveedor, se presupone que los usuarios de este material han sido correctamente entrenados según las exigencias de toda la legislación aplicable y demás instrumentos regulatorios. El proveedor no efectúa ninguna garantía, expresa ni tácita, y no será responsable por ninguna pérdida, daños o consecuencia dañina que pueda resultar del uso o de la confiabilidad de cualquier información contenida en este documento.

Fecha de emisión 26-Julio-2021

Indicación de la versión 01

Información adicional No disponible.

Otra información Para obtener una Hoja de Datos de Seguridad actualizada, por favor póngase en contacto con el distribuidor /el fabricante que figura en la primera página de este documento.

Artículo: No disponible

Artículo de referencia: 174096.001

Preparado por: The Clorox Company, 4900 Johnson Drive, Pleasanton, CA 94588, 925-368-6000

THE CLOROX COMPANY

SAFETY DATA SHEET

Issuing Date January 5, 2015 **Revision Date** New **Revision Number** 0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name **Clorox® Regular Bleach$_1$**

Other means of identification

EPA Registration Number 5813-100

Recommended use of the chemical and restrictions on use

Recommended use Household disinfecting, sanitizing, and laundry bleach

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address
The Clorox Company
1221 Broadway
Oakland, CA 94612

Phone: 1-510-271-7000

Emergency telephone number

Emergency Phone Numbers For Medical Emergencies, call: 1-800-446-1014
For Transportation Emergencies, call Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

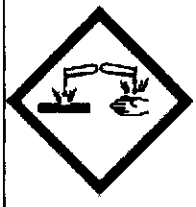
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1

GHS Label elements, including precautionary statements

Emergency Overview

Signal word **Danger**

Hazard Statements
Causes severe skin burns and eye damage
Causes serious eye damage



Appearance Clear, pale yellow **Physical State** Thin liquid **Odor** Bleach

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling.
Wear protective gloves, protective clothing, face protection, and eye protection such as safety glasses.

Precautionary Statements - Response
Immediately call a poison center or doctor.
If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
Wash contaminated clothing before reuse.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Specific treatment (see supplemental first aid instructions on this label).
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Precautionary Statements - Storage
Store locked up.

Precautionary Statements - Disposal
Dispose of contents in accordance with all applicable federal, state, and local regulations.

Hazards not otherwise classified (HNOC)
Although not expected, heart conditions or chronic respiratory problems such as asthma, chronic bronchitis, or obstructive lung disease may be aggravated by exposure to high concentrations of vapor or mist.

Product contains a strong oxidizer. Always flush drains before and after use.

Unknown Toxicity
Not applicable.

Other information
Very toxic to aquatic life with long lasting effects.

Interactions with Other Chemicals
Reacts with other household chemicals such as toilet bowl cleaners, rust removers, acids, or products containing ammonia to produce hazardous irritating gases, such as chlorine and other chlorinated compounds.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade Secret
Sodium hypochlorite	7681-52-9	5 - 10	*

* The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General Advice Call a poison control center or doctor immediately for treatment advice. Show this safety data sheet to the doctor in attendance.

Eye Contact Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin Contact Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Inhalation Move to fresh air. If breathing is affected, call a doctor.

Ingestion Have person sip a glassful of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. Call a poison control center or doctor immediately for treatment advice.

Protection of First-aiders Avoid contact with skin, eyes, and clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects Burning of eyes and skin.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically. Probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media
CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical
This product causes burns to eyes, skin, and mucous membranes. Thermal decomposition can release sodium chlorate and irritating gases and vapors.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Avoid contact with eyes, skin, and clothing. Ensure adequate ventilation. Use personal protective equipment as required. For spills of multiple products, responders should evaluate the MSDSs of the products for incompatibility with sodium hypochlorite. Breathing protection should be worn in enclosed and/or poorly-ventilated areas until hazard assessment is complete.
Other Information	Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental Precautions	This product is toxic to fish, aquatic invertebrates, oysters, and shrimp. Do not allow product to enter storm drains, lakes, or streams. See Section 12 for ecological Information.

Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Cleaning Up	Absorb and containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes, and clothing. Do not eat, drink, or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Store away from children. Reclose cap tightly after each use. Store this product upright in a cool, dry area, away from direct sunlight and heat to avoid deterioration. Do not contaminate food or feed by storage of this product.

Incompatible Products Toilet bowl cleaners, rust removers, acids, and products containing ammonia.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium hypochlorite 7681-52-9	None	None	None

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection If splashes are likely to occur: Wear safety glasses with side shields (or goggles) or face shield.

Skin and Body Protection Wear rubber or neoprene gloves and protective clothing such as long-sleeved shirt.

Respiratory Protection If irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. Wash hands after direct contact. Do not wear product-contaminated clothing for prolonged periods. Remove and wash contaminated clothing before re-use. Do not eat, drink, or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical State	Thin liquid		
Appearance	Clear	**Odor**	Bleach
Color	Pale yellow	**Odor Threshold**	No information available

Property	Values	Remarks/ Method
pH	~12	None known
Melting/freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	Not flammable	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
Upper flammability limit	No data available	None known
Lower flammability limit	No data available	None known
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	~1.1	None known
Water Solubility	Soluble	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive Properties	Not explosive	
Oxidizing Properties	No data available	

Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	No data available

10. STABILITY AND REACTIVITY

Reactivity
Reacts with other household chemicals such as toilet bowl cleaners, rust removers, acids, or products containing ammonia to produce hazardous irritating gases, such as chlorine and other chlorinated compounds.

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
None known based on information supplied.

Incompatible materials
Toilet bowl cleaners, rust removers, acids, and products containing ammonia.

Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation Exposure to vapor or mist may irritate respiratory tract and cause coughing. Inhalation of high concentrations may cause pulmonary edema.

Eye Contact Corrosive. May cause severe damage to eyes.

Skin Contact May cause severe irritation to skin. Prolonged contact may cause burns to skin.

Ingestion Ingestion may cause burns to gastrointestinal tract and respiratory tract, nausea, vomiting, and diarrhea.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium hypochlorite 7681-52-9	8200 mg/kg (Rat)	>10000 mg/kg (Rabbit)	-

Information on toxicological effects

Symptoms May cause redness and tearing of the eyes. May cause burns to eyes. May cause redness or burns to skin. Inhalation may cause coughing.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium hypochlorite 7681-52-9	-	Group 3	-	-

IARC (International Agency for Research on Cancer)
Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive Toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.
Chronic Toxicity Carcinogenic potential is unknown.
Target Organ Effects Respiratory system, eyes, skin, gastrointestinal tract (GI).

Aspiration Hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)
54 g/kg
ATEmix (inhalation-dust/mist)
58 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity
Very toxic to aquatic life with long lasting effects.

This product is toxic to fish, aquatic invertebrates, oysters, and shrimp. Do not allow product to enter storm drains, lakes, or streams.

Persistence and Degradability
No information available.

Bioaccumulation
No information available.

Other adverse effects
No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods
Dispose of in accordance with all applicable federal, state, and local regulations. Do not contaminate food or feed by disposal of this product.

Contaminated Packaging
Do not reuse empty containers. Dispose of in accordance with all applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

DOT NOT REGULATED.

TDG

UN-No	UN3082
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Hazard Class	9
Packing Group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III, MARINE POLLUTANT

ICAO

UN-No	UN3082
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Hazard Class	9
Packing Group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III

IATA

UN-No	UN3082
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Hazard Class	9
Packing Group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III

IMDG/IMO

UN-No	UN3082
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Hazard Class	9
Packing Group	III
EmS No.	F-A, S-F
Marine Pollutant	Product is a marine pollutant according to the criteria set by IMDG/IMO
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III, MARINE POLLUTANT

15 REGULATORY INFORMATION

Chemical Inventories

TSCA	All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.
DSL/NDSL	All components are on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hypochlorite 7681-52-9	100 lb			X

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Sodium hypochlorite 7681-52-9	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ

EPA Statement
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

> **DANGER: CORROSIVE.** Causes irreversible eye damage and skin burns. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Wear protective eyewear and rubber gloves when handling this product. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the restroom. Avoid breathing vapors and use only in a well-ventilated area.

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Sodium hypochlorite 7681-52-9	X	X	X	X	
Sodium chlorate 7775-09-9	X	X	X		

International Regulations

Canada
WHMIS Hazard Class
E - Corrosive material



16 OTHER INFORMATION

NFPA	**Health Hazard**	3	**Flammability**	0	**Instability**	0	**Physical and Chemical Hazards** -
HMIS	**Health Hazard**	3	**Flammability**	0	**Physical Hazard**	0	**Personal Protection** B

Prepared By
Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Revision Date New

Revision Note New

Reference 1096036/164964.159

General Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

Nasco
901 Janesville Ave.
P.O. Box 901
Fort Atkinson, WI 53538-0901

CHEMTREC 24 Hour Emergency
Phone Number (800) 424-9300
For laboratory use only.
Not for drug, food or household use.

Product	COBALT(II) CHLORIDE, HEXAHYDRATE
Synonyms	Cobaltous Chloride, Hexahydrate / Cobalt Dichloride, Hexahydrate

Signal word: DANGER
Pictograms: GHS05 / GHS07 / GHS08 / GHS09
Target organs: Eyes, Skin, Respiratory system, Gastrointestinal tract, Liver, Kidneys, Blood, Heart, Reproductive system



GHS Classification:
Acute toxicity, oral (Category 4)
Skin corrosion (Category 1A)
Serious eye damage (Category 1)
Skin sensitisation (Category 1)
Respiratory sensitization (Category 1)
Mutagenicity (Category 2)
Carcinogenicity (Category 1B)
Reproductive toxicity (Category 1B)
Aquatic acute (Category 1)
Aquatic chronic (Category 1)

GHS Label information: Hazard statement:
H302: Harmful if swallowed.
H314: Causes severe skin burns and eye damage.
H317: May cause an allergic skin reaction.
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341: Suspected of causing genetic defects.
H350: May cause cancer.
H360: May damage fertility or the unborn child.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statement:
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P260: Do not breathe dust.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P272: Contaminated work clothing should not be allowed out of the workplace.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P284: Wear respiratory protection.
P301+P330+ P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313: IF exposed or concerned: Get medical attention.
P363: Wash contaminated clothing before reuse.
P391: Collect spillage.
P405: Store locked up.
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Chemical Name	CAS #	%	EINECS
Cobalt chloride, hexahydrate	7791-13-1	100%	231-589-4

INGESTION: HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: CAUSES EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY BE HARMFUL IF ABSORBED THROUGH SKIN. CAUSES SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire.
Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.
Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.
Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.
Containment and Cleanup: Recover for reuse if not contaminated. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

SB01170 COBALT CHLORIDE HEXAHYDRATE 100G

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

Exposure Limits:

Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Cobalt and inorganic compounds, as Co	TWA: 0.02 mg/m^3 (A3)	TWA: 0.1 mg/m^3 for metal dust & fume	TWA: 0.05 mg/m^3 for metal dust & fume

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Appearance: Solid. Damp, red crystals.
Odor: Hydrochloric acid odor.
Odor threshold: Data not available.
pH: Data not available.
Melting / Freezing point: Data not available
Boiling point: Data not available
Flash point: Data not available

Evaporation rate (= 1): Data not available
Flammability (solid/gas): Data not available.
Explosion limits: Lower / Upper: Data not available
Vapor pressure (mm Hg): Data not available
Vapor density (Air = 1): Data not available
Relative density (Specific gravity): 1.92
Solubility(ies): Soluble in water.

Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: 400°C
Viscosity: Data not available.
Molecular formula: $CoCl_2{\cdot}6H_2O$
Molecular weight: 237.93

Chemical stability: Stable
Hazardous polymerization: Will not occur.
Conditions to avoid: Excessive temperatures, moisture. Material is hygroscopic.
Incompatible materials: Strong oxidizers. Corrosive to aluminum when wet.
Hazardous decomposition products: Sublimes at 500°C into HCl gas. Thermal decomposition may produce chlorine.

Acute toxicity: Oral-rat LD50: 766 mg/kg ; Dermal-rat LD50: >2,000 mg/kg
Skin corrosion/irritation: Data not available
Serious eye damage/irritation: Data not available
Respiratory or skin sensitization: Data not available
Germ cell mutagenicity: Data not available
Carcinogenity: Data not available
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
IARC classified: Group 2B: Possibly carcinogenic to humans.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity: Data not available
STOT-single exposure: Data not available
STOT-repeated exposure: Data not available
Aspiration hazard: Data not available
Potential health effects:
Inhalation: Prolonged or repeated inhalation may cause respiratory sensitization. May cause lung damage.
Ingestion: May cause vimiting, deamhea and a sensation of hotness.
Skin: Prolonged or repeated exposure causes irritation and may result in an allergic skin reaction.
Eyes: Causes irritation and/or burns.
Signs and symptoms of exposure: Exercise appropriate procedures to minimize potential hazards.
Additional information: RTECS #: GG0200000

Toxicity to fish: LC50 - Cyprinus carpio (Carp) - 9.33 mg/l - 96.0 h
Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Water flea) - 1.1 - 1.6 mg/l - 48 h
Toxicity to algae: EC50 - Chlorella vulgaris (Fresh water algae) - 0.5 mg/l - 96 h
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
PBT and vPvB assessment: No data available
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

UN/NA number: UN3260
Shipping name: Corrosive solid, acidic, inorganic, n.o.s., (Cobalt chloride)
Hazard class: 8
Packing group: II
Reportable Quantity: No
Marine pollutant: No
Exceptions: Limited quantity equal to or less than 1 Kg
2012 ERG Guide # 154

A chemical is considered to be listed if the CAS number for the anhydrous form is on the inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	WHMIS Classification
Cobalt chloride	Listed	Not listed	Not listed	Listed	Not listed	D2A; D2B

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Revision Date: August 25, 2014 **Supercedes:** May 29, 2013

Section 1 Chemical Product and Company Information

ward's science
5100 West Henrietta Rd
PO Box 92912
Rochester, NY 14692-9012
Tel: (800) 962-2660

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300
For laboratory use only.
Not for drug, food or household use.

Product	**COBALT NITRATE, HEXAHYDRATE**
Synonyms	Cobalt(II) Nitrate, Hexahydrate ; Cobaltous Nitrate, Hexahydrate

Section 2 Hazards Identification

Signal word: DANGER
Pictograms: GHS03 / GHS05 / GHS07 / GHS08 / GHS09
Target organs: Kidneys, Lungs, Thyroid



GHS Classification:
Oxidizing solid (Category 2)
Acute toxicity, oral (Category 4)
Skin sensitization (Category 1)
Eye damage (Category 1)
Mutagenicity (Category 2)
Carcinogenicity (Category 1B)
Reproductive toxicity (Category 1B)
Aquatic acute (Category 1)
Aquatic chronic (Category 1)

GHS Label information: Hazard statement:
H272: May intensify fire; oxidizer.
H302: Harmful if swallowed.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H341: Suspected of causing genetic defects.
H350: May cause cancer.
H360: May damage fertility or the unborn child.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statement:
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220: Keep away from clothing/incompatible/combustible materials.
P221: Take any precaution to avoid mixing with combustibles/acids/oxidizers.
P261: Avoid breathing dust.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P272: Contaminated work clothing should not be allowed out of the workplace.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P312: IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor if you feel unwell.
P302+P352: IF ON SKIN: Wash with plenty of water and soap.
P333+P313: If skin irritation or rash occurs: Get medical attention.
P308+P313: IF exposed or concerned: Get medical attention.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER or doctor.
P362+P364: Take off contaminated clothing and wash it before reuse.
P370+P378: In case of fire: Use dry chemical, alcohol foam, carbon dioxide or water spray to extinguish.
P391: Collect spillage.
P405: Store locked up.
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Cobalt nitrate	10026-22-9	100%	233-402-1 (anhydrous)

Section 4 First Aid Measures

INGESTION: HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: CAUSES EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY BE HARMFUL IF ABSORBED THROUGH SKIN. CAUSES SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. In contact with easlily oxidizable substances it may react rapidly enough to cause ignition, violent combustion or explosion.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Remove all sources of ignition. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from ignition sources.

Section 8 Exposure Controls / Personal Protection

Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
	Cobalt and inorganic compounds, as Co	TWA: 0.02 mg/m^3(A3)	TWA: 0.1 mg/m^3 metal dust and fume	TWA: 0.05 mg/m^3 metal dust and fume

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Appearance: Solid. Small red flakes
Odor: Slight nitric acid odor.
Odor threshold: Data not available.
pH: Data not available.
Melting / Freezing point: 55°C (131°F)
Boiling point: Data not available
Flash point: Data not available

Evaporation rate (Butyl acetate = 1): Data not available
Flammability (solid/gas): Data not available.
Explosion limits: Lower / Upper: Data not available
Vapor pressure (mm Hg): Data not available
Vapor density (Air = 1): Data not available
Relative density (Specific gravity): 1.88
Solubility(ies): Soluble in water.

Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: Data not available.
Viscosity: Data not available.
Molecular formula: $Co(NO_3)_2{\cdot}6H_2O$
Molecular weight: 291.03

Section 10 Stability & Reactivity

Chemical stability: Stable
Hazardous polymerization: Will not occur.
Conditions to avoid: Excessive temperatures, heat, sparks, open flame and other sources of ignition. Moisture.
Incompatible materials: Oxidizers.
Hazardous decomposition products: Nitrogen oxides.

Section 11 Toxicological Information

Acute toxicity: Oral-rat LD50: 691 mg/kg
Skin corrosion/irritation: Data not available
Serious eye damage/irritation: Data not available
Respiratory or skin sensitization: Data not available
Germ cell mutagenicity: Data not available
Carcinogenity: Data not available
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
IARC classified: Group 2B: Possibly carcinogenic to humans.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity: Data not available
STOT-single exposure: Data not available
STOT-repeated exposure: Data not available
Aspiration hazard: Data not available
Potential health effects:
Inhalation: Harmful if inhaled.
Ingestion: Harmful in ingested.
Skin: Contact causes irritation or acid burns.
Eyes: Contact causes irritation or acid burns.
Signs and symptoms of exposure: The substance is irritating to skin, eyes and respiratory tract. Repeated or prolonged inhalation may cause asthma. This substance is possibly carcinogenic to humans. Exercise appropriate procedures to minimize potential hazards.
Additional information: RTECS #: QU7355500

Section 12 Ecological Information

Toxicity to fish: LC50 (Fresh water) = 1.5 µg/L
Toxicity to daphnia and other aquatic invertebrates: LC50 (Fresh water) = 0.61 mg/L
Toxicity to algae: LC50 (Fresh water) = 144 µg/L
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
PBT and vPvB assessment: No data available
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number: UN3085
Shipping name: Oxidizing solid, corrosive, n.o.s., (Cobalt dinitrate)
Hazard class: 5.1, (8)
Packing group: III
Reportable Quantity: No
Marine pollutant: No
Exceptions: Limited quantity equal to or less than 5 Kg
2012 ERG Guide # 140

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	WHMIS Classification
Cobaltous nitrate hexhydrate	Listed	Not listed	D001	Not listed	Not listed	C ; D2A ; D2B

Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Revision Date: July 18, 2013 **Supercedes:** April 10, 2013

SAFETY DATA SHEET

A91W453

Section 1. Identification

Product name : COLOR TO GO® Interior/Exterior Acrylic Latex Satin Deep Base

Product code : A91W453

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : THE SHERWIN-WILLIAMS COMPANY
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Product Information Telephone Number : US / Canada: 1-800-474-3794
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 1A

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : Causes serious eye irritation.
Causes skin irritation.
May cause cancer.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Section 2. Hazards identification

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Wash hands thoroughly after handling.

Response : IF exposed or concerned: Get medical attention. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage : Store locked up.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Adequate ventilation required when sanding or abrading the dried film. If Adequate ventilation cannot be provided wear an approved particulate respirator (NIOSH approved). Follow respirator manufacturer's directions for respirator use. DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Abrading or sanding of the dry film may release Crystalline Silica which has been shown to cause lung damage and cancer under long term exposure.

Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Calcium Carbonate	≥10 - <20	1317-65-3
Titanium Dioxide	≤5	13463-67-7
Heavy Paraffinic Oil	≤1	64742-65-0
Crystalline Silica, respirable powder	≤0.3	14808-60-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 4. First aid measures

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Section 5. Fire-fighting measures

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Section 7. Handling and storage

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
Calcium Carbonate	1317-65-3	**OSHA PEL (United States, 5/2018).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust **NIOSH REL (United States, 10/2016).** TWA: 5 mg/m³ 10 hours. Form: Respirable fraction TWA: 10 mg/m³ 10 hours. Form: Total
Titanium Dioxide	13463-67-7	**ACGIH TLV (United States, 3/2019).** TWA: 10 mg/m³ 8 hours. **OSHA PEL (United States, 5/2018).** TWA: 15 mg/m³ 8 hours. Form: Total dust
Heavy Paraffinic Oil	64742-65-0	**OSHA PEL (United States, 5/2018).** TWA: 5 mg/m³ 8 hours. **ACGIH TLV (United States, 3/2019).** TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction **NIOSH REL (United States, 10/2016).** TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist
Crystalline Silica, respirable powder	14808-60-7	**OSHA PEL Z3 (United States, 6/2016).** TWA: 250 mppcf / (%SiO2+5) 8 hours. Form: Respirable TWA: 10 mg/m³ / (%SiO2+2) 8 hours. Form: Respirable **OSHA PEL (United States, 5/2018).** TWA: 50 µg/m³ 8 hours. Form: Respirable dust **ACGIH TLV (United States, 3/2019).** TWA: 0.025 mg/m³ 8 hours. Form: Respirable fraction **NIOSH REL (United States, 10/2016).** TWA: 0.05 mg/m³ 10 hours. Form: respirable dust

Occupational exposure limits (Canada)

Section 8. Exposure controls/personal protection

Ingredient name	CAS #	Exposure limits
Titanium dioxide	13463-67-7	**CA British Columbia Provincial (Canada, 5/2019).** TWA: 3 mg/m³ 8 hours. Form: Respirable dust TWA: 10 mg/m³ 8 hours. Form: Total dust **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 10 mg/m³ 8 hours. Form: Total dust. **CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 10 mg/m³ 8 hours. **CA Ontario Provincial (Canada, 1/2018).** TWA: 10 mg/m³ 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 20 mg/m³ 15 minutes. TWA: 10 mg/m³ 8 hours.
Quartz	14808-60-7	**CA British Columbia Provincial (Canada, 5/2019).** TWA: 0.025 mg/m³ 8 hours. Form: Respirable **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 0.1 mg/m³ 8 hours. Form: Respirable dust. **CA Ontario Provincial (Canada, 1/2018).** TWA: 0.1 mg/m³ 8 hours. Form: Respirable fraction. **CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 0.025 mg/m³ 8 hours. Form: Respirable particulate **CA Saskatchewan Provincial (Canada, 7/2013).** TWA: 0.05 mg/m³ 8 hours. Form: respirable fraction

Occupational exposure limits (Mexico)

	CAS #	Exposure limits
None.		

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls/personal protection

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : 9.5

Melting point/freezing point : Not available.

Boiling point/boiling range : 100°C (212°F)

Flash point : Closed cup: >94°C (>201.2°F)

Evaporation rate : 0.09 (butyl acetate = 1)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : 2.3 kPa (17.5 mm Hg) [at 20°C]

Vapor density : 1 [Air = 1]

Relative density : 1.22

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): >0.205 cm^2/s (>20.5 cSt)

Molecular weight : Not applicable.

Aerosol product

Heat of combustion : 0.803 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Heavy Paraffinic Oil	LD50 Dermal LD50 Oral	Rabbit Rat	>5000 mg/kg >5000 mg/kg	- -

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Titanium Dioxide	Skin - Mild irritant	Human	-	72 hours 300 ug l	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Titanium Dioxide Crystalline Silica, respirable powder	- -	2B 1	- Known to be a human carcinogen.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Calcium Carbonate	Category 3	Not applicable.	Respiratory tract irritation

Section 11. Toxicological information

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Crystalline Silica, respirable powder	Category 1	Inhalation	Not determined

Aspiration hazard

Name	Result
Heavy Paraffinic Oil	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Section 11. Toxicological information

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Titanium Dioxide	Acute LC50 >1000000 µg/l Marine water	Fish - Fundulus heteroclitus	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	Not regulated.	Not regulated.	Not regulated.	UN3082	UN3082
UN proper shipping name	-	-	-	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc Pyrithione, Octylphenoxypoly (ethoxy)ethanol)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc Pyrithione, Octylphenoxypoly (ethoxy)ethanol). Marine pollutant

Section 14. Transport information

					(Zinc Pyrithione, Octylphenoxypoly (ethoxy)ethanol)
Transport hazard class(es)	-	-	-	9 	9 
Packing group	-	-	-	III	III
Environmental hazards	No.	No.	No.	Yes.	Yes.
Additional information	-	-	-	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. **Emergency schedules** F-A, S-F

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Proper shipping name : Not available.

Ship type : Not available.

Pollution category : Not available.

Section 15. Regulatory information

TSCA 5(a)2 proposed significant new use rules: 5-Chloro-2-methylisothiazolinone

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

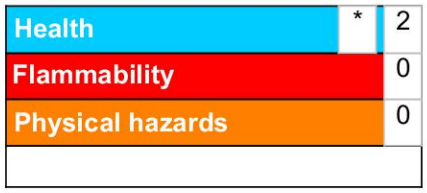
Section 15. Regulatory information

International regulations

International lists : **Australia inventory (AICS)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory (ENCS): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Classification	Justification
SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A CARCINOGENICITY - Category 1A	Calculation method Calculation method Calculation method

History

Date of printing : 11/27/2019

Date of issue/Date of revision : 11/27/2019

Date of previous issue : 8/31/2019

Version : 9

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Section 16. Other information

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

11/17/2015

SECTION I - IDENTIFICATION

Material Name
COLORATIONS LIQUID WATERCOLOR

Company Information
Discount School Supply/Excelligence Learning Corporation
1112 Ravenwood Drive
Bethlehem, GA 30620
Phone: 1-770-307-1077
Fax: 1-770-307-4907
Email: acraig@excelligence.com

For transportation emergencies only call: 1-800-627-2829

For health emergencies call the Poison Control Center: 1-800-222-1222

SECTION II - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

There are no GHS label elements.

PRIMARY ROUTES OF ENTRY: INHALATION, INGESTION, EYE, SKIN

EFFECTS AND SYMPTOMS OF ACUTE EXPOSURE: NONE EXPECTED

EFFECTS AND SYMPTOMS OF CHRONIC EXPOSURE: NONE EXPECTED

CARCINOGEN LISTING: NTP: **NO** IARC: **NO** OSHA: **NO**

SEE SECTION III FOR COMPONENTS AFFECTED

MEDICAL CONDITIONS USUALLY AGGRAVATED BY OVER EXPOSURE TO THIS PRODUCT: NONE

SECTION III - COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

Hazardous Ingredients	CAS/EC #	PEL/TLV (MG/M#)	Max % Weight	NTP	IARC
None					

SECTION IV - FIRST AID MEASURES

FIRST AID MEASURES: NONE REQUIRED. NO ACUTE HEALTH EFFECTS EXPECTED.

SECTION V - FIRE FIGHTING MEASURES

FLASH POINT (METHOD): N/A
AUTOIGNITION TEMPERATURE: N/A
EXPLOSION LIMITS IN AIR (% BY VOLUME): NOT EXPLOSIVE
EXTINGUISHING MEDIA: NO SPECIAL MEDIA REQUIRED
FIRE FIGHTING PROCEDURES: NO SPECIAL FIRE FIGHTING PROCEDURES REQUIRED
UNUSUAL FIRE & EXPLOSION HAZARDS: NOT COMBUSTIBLE

SECTION VI - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE A MATERIAL IS SPILLED: Clean up in accordance with all applicable regulations. Absorb spillage with non-combustible, absorbent material. For waste disposal, see Section XIII

SECTION VII - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING STORAGE AND HANDLING: Good industrial hygiene practice requires that exposure be maintained below the TLV. This is preferably achieved through the provision of adequate ventilation. When exposure cannot be adequately controlled in this way, personal respiratory protection should be employed.

SECTION VIII - EXPOSURE CONTROLS / PERSONAL PROTECTION

RESPIRATORY PROTECTION AND SPECIAL VENTILATION REQUIREMENTS: NONE REQUIRED
OTHER PROTECTIVE EQUIPMENT (GLOVES, GOGGLES, ETC): NONE REQUIRED
WORK/HYGIENE PRACTICES: NONE REQUIRED
ENGINEERING CONTROLS: NONE REQUIRED

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: N/A
MELTING POINT: N/A
VAPOR PRESSURE: N/A
SPECIFIC VAPOR DENSITY (AIR=1): N/A
SPECIFIC GRAVITY: N/A
SOLUBILITY IN WATER: N/A
REACTIVITY IN WATER: NON-REACTIVE

SECTION X - STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION PRODUCTS: N/A
STABILITY: STABLE CONDITIONS TO AVOID: N/A
INCOMPATIBILITY (MATERIALS TO AVOID): N/A
HAZARDOUS DECOMPOSITION PRODUCTS: N/A

SECTION XI - TOXICOLOGICAL INFORMATION

ACUTE EFFECTS ASSOCIATED WITH USE OF THIS MATERIAL: NONE EXPECTED
The summated LD50 is 23681 mg/kg.
The summated LC50 is 9337.5 mg/cubic meter.
This product is not considered to be a known or suspected human carcinogen by NTP, IARC or OSHA (see section III)

SECTION XII - ECOLOGICAL INFORMATION

NO HARMFUL EFFECTS KNOWN OTHER THAN THOSE ASSOCIATED WITH SUSPENDED INERT SOLIDS IN WATER.

SECTION XIII - DISPOSAL CONSIDERATIONS

RCRA HAZARD CLASS (40 CFR 261): THIS PRODUCT IS NOT CLASSIFIED AS A HAZARDOUS WASTE.
WASTE DISPOSAL METHOD: DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

SECTION XIV - TRANSPORTATION INFORMATION

[U.S. DOT (49 CFR 172.101): THIS IS NOT A HAZARDOUS MATERIAL AS CLASSIFIED BY CFR 172.101.]

SECTION XV - REGULATORY INFORMATION

CONTENTS OF THIS SDS COMPLY WITH OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910.1200
EPA SARA TITLE III CHEMICAL LISTINGS
NONE

SECTION 302.4 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):
NONE

SECTION 313 TOXIC CHEMICALS (40 CFR 372):
NONE

INTERNATIONAL REGULATIONS

CANADIAN WHMIS: THIS PRODUCT IS A CONTROLLED PRODUCT UNDER CANADA'S WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. IT CONTAINS THE FOLLOWING TOXIC OR HIGHLY TOXIC MATERIALS:
MICA
PROPYLENE GLYCOL

SUPPLEMENTAL STATE COMPLIANCE INFORMATION:

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) LISTED UNDER NEW JERSEY'S RIGHT TO KNOW PROGRAM:
MICA
PIGMENT WHITE 6
PROPYLENE GLYCOL

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) REQUIRING NOTIFICATION TO THE STATE OF WASHINGTON UNDER THEIR CHILDREN'S SAFE PRODUCTS ACT:
NONE

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) LISTED IN FLORIDA'S TOXIC SUBSTANCE LIST:
Mica dust

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) LISTED IN MAINE'S PRIORITY CHEMICAL LIST:
NONE

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICALS CONSIDERED BY VERMONT AS BEING OF VERY HIGH CONCERN TO CHILDREN:
NONE

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) LISTED IN MASSACHUSETTS HAZARDOUS SUBSTANCE LIST:
Mica Dust
Titanium dioxide

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) LISTED ON MICHIGAN'S CRITICAL MATERIALS REGISTER:
NONE

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) LISTED ON MINNESOTA'S HAZARDOUS SUBSTANCES LIST:
Propylene glycol
Titanium dioxide

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) LISTED IN PENNSYLVANIA'S HAZARDOUS SUBSTANCES LIST:
1,2-Propanediol
Mica-group minerals
Titanium oxide

Under CPSC's consumer product regulations (16CFR1500.3 and 150014), this product has the following required acute and chronic hazard labeling:

NONE

SECTION XVI - OTHER INFORMATION

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

LAST REVISION DATE: 11/17/2015

Prepared by Duke OEM Toxicology

COLOR INFORMATION

THIS SDS APPLIES TO THE FOLLOWING COLORS WHICH ARE ASSOCIATED WITH HAZARDOUS AND/OR NON-HAZARDOUS INGREDIENTS

Product Color	SKU	Hazardous Ingredient
BLACK		(NONE)
BLUE		(NONE)
BROWN		(NONE)
FUSCHIA		(NONE)
GLITTER BLUE		(NONE)
GLITTER GREEN		(NONE)
GLITTER MAGENTA		(NONE)
GLITTER ORANGE		(NONE)
GLITTER RED		(NONE)
GLITTER TURQUOISE		(NONE)
GLITTER VIOLET		(NONE)
GLITTER YELLOW		(NONE)
GOLD		(NONE)
GRAY		(NONE)
GREEN		(NONE)
LIME		(NONE)
MAGENTA		(NONE)
ORANGE		(NONE)
PEACH		(NONE)
PINK		(NONE)
PURPLE		(NONE)
RED		(NONE)
SILVER		(NONE)
TANGERINE		(NONE)
TEAL		(NONE)
TURQUOISE		(NONE)
VIOLET		(NONE)
WHITE		(NONE)
YELLOW		(NONE)

BRAND NAMES

THIS SDS APPLIES TO THE FOLLOWING BRAND NAMES

Brand Name
COLORATIONS LIQUID WATERCOLOR
COLORATIONS GLITTER LIQUID WATERCOLOR

Minerals International, LLC
Commercial Blue™ Ice Melt
Solid Commercial Deicer
Safety Data Sheet

Section 1: IDENTIFICATION

PRODUCT IDENTIFIER
Commercial Blue™ ICE MELT
Solid Commercial Deicer

RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE
Deicing/anti-icing highways, bridges, parking lots, and other pavements.

DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET
Name/Address: PO Box 222
Richboro, PA 18954

Contact Information: Telephone: 203-309-6644
Fax: 215-422-3814
Email:MineralsIntl@verizon.net
Website: WWW.MinerlasInternational.net

EMERGENCY TELEPHONE NUMBER
CHEMTREC (800) 424-9300
Outside continental USA (703) 527-3887

Section 2: HAZARD(S) IDENTIFICATION

CLASSIFICATION ACCORDING TO OSHA HAZCOM 2012
Hazard Class: Not classified as hazardous

LABEL ELEMENTS ACCORDING TO OSHA HAZCOM 2012
There are no OSHA required label elements for this product.

CLASSIFICATION ACCORDING TO WHMIS (Canada)
Hazard Class: Not controlled
WHMIS Hazard Symbols: Not applicable
WHMIS Signal Word: Not applicable

POTENTIAL HEATH EFFECTS
Eye Contact May cause temporary eye irritation. Corneal injury is unlikely.
Skin Contact Repeated contact may cause slight skin irritation or dry skin.
Inhalation may cause irritation or coughing.
Ingestion Ingestion of large quantities may cause nausea, vomiting, diarrhea and abdominal discomfort.
Effects of repeated exposure No effects other than described above are expected.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

COMPOSITION: Commercial Blue is a blend of three ice melting chemicals.

MIXTURES

Ingredient	CAS No	Wt. %
Sodium Chloride	7647-14-5	95% - 98%
Calcium Chloride	10043-52-4	Proprietary
Potassium Acetate	127-08-02	Proprietary

Section 4: FIRST-AID MEASURES

DESCRIPTION OF FIRST AID MEASURE

Eye In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, seek medical attention.

Skin As a precaution, wash skin thoroughly with soap and water. Remove and wash contaminated clothing.

Inhalation If inhaled, move to fresh are and get medical advice.

Ingestion If swallowed, give mil or water to drink and telephone for medical advice. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

MOST IMPORTANT SYMPTIOMS / EFFECTS

Eye May cause eye irritation. Symptoms may include temporary discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Skin As a precaution, wash skin thoroughly with soap and water. Remove and wash contaminated clothing.

Inhalation Inhalation of dust during handling may cause respiratory tract irritation and coughing.

Ingestion Ingestion of large quantities may cause nausea, vomiting, diarrhea and abdominal discomfort.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT

Specific treatments If you fell unwell, seek medical advice immediately. Show the label or safety data sheet to medical personnel if possible.

Section 5: FIRE FIGHTING MEASURES

FLAMMABILITY

Flash Point (close up) Nonflammable by OSHA/WHMIS criteria

Auto Ignition Not applicable

EXTINGUISHING MEDIA

Suitable Extinguishing Media Water, carbon dioxide, or dry chemical. Use extinguishing media appropriate for surrounding materials.

Unsuitable Extinguishing Media Not applicable

SPECIAL HAZARDS

Hazardous Combustion Products Normal combustion forms carbon dioxide and water

Explosion Limits Data not available. Not considered to be explosion hazard.

Unusual Fire Hazard None expected

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIERFIGHTERS

Special Protective Equipment for Firefighters

Wear NIOSH approved self-contained breathing apparatus (SCBA) with positive air pressure.

Section 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUSTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES

Avoid eye/skin contact with spilled material. Refer to Section 7 for additional handling precautions

Methods for Containment If material is dissolved, contain and/or absorb spill with inert material (e.g. sawdust, sand, vermiculite).

Methods for Cleaning-UP Scoop up material and transfer to disposal container. If needed, was spillage area with plenty of water.

Section 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Handling Avoid eye contact. Avoid breathing dust when handling.

PRECAUTIONS FOR SAFE STORAGE, INCLUDING ANY COMPATIBILITIES

Storage Store in tightly sealed original containers, away from direct heat and strong oxidizing agents. Do not store or handle product in systems constructed of wetted parts consisting of galvanized steel, zinc, or brass components.

Section 8: CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS

TWA PEL:	No specific limits have been established for this product. As a guideline, OSHA (United States) has established the following limits which are generally recognized for inert or nuisance dust. Particulates Not Otherwise Regulated (PNOR): 8-hour TWA of 15mg/m3 (total particulate) and 5 mg/m3 (respirable fraction).
TWA TLV:	No specific limits have been established for this product. As a guideline, ACGIH (United States) has established the following limits which are generally recognized for inert or nuisance dust. Particulates (insoluble) Not Otherwise Classified (PNOC): 8- Hour TWA limits of 10 mg/m3 (as total dust) and 3 mg/m3 (as respirable)

EXPOSURE CONTROLS

Engineering Controls	No special ventilation is usually necessary; however if operating conditions create high concentration of this material, special ventilation may be needed to keep exposure to airborne contaminants below the exposure limit.

INDIVIDUAL PROTECTIVE MEASURES/PERSONAL PROTECTIVE EQUIPMENT

Eye Protection	Safety glasses or goggles are recommended if eye exposure to product or dust is possible.
Skin Protection	Chemical-resistant gloves and clothing should be used if prolonged exposure is possible to prevent drying of skin.
Respiratory Protection	Breathing of dust should be avoided. If operating conditions create high airborne concentrations of this material, the use of an approved respirator is recommended.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	White to off white salt colored blue with white flakes
ODOR	Odorless
ODOR THRESHOLD	No data available
Ph (20^{o}C, 68^{o}F)	8-10 (10% aqueous solution)
MELTING POINT	Decomposes
BOILING POINT	Not applicable
FLASH POINT	Not applicable
EVAPORATION RATE	No data available
FLAMMABILITY/EXPLOAION LIMITS	Not applicable
VAPOR PRESSURE (20^{o}c)	Not applicable
VAPOR DENSITY (AIR = 1)	Not applicable
RELATIVE DENSITY	No data available
SOLUBILITY IN WATER	Partially soluble
PARTITION COEFFICIENT; n-OCTANOL/WATER	No data available
AUTO-IGNITION TEMPERATURE	No data available
DECOMPOSITION TEMPERATURE	No data available
VISCOSITY (20^{o}C)	Not applicable
OXIDIZING PROPERTIES	Not oxidizing
EXPLOSIVE PROPERTIES	Not explosive

Section 10: STABILITY AND REACTIVITY

REACTIVITY
No dangerous reactions known under conditions of normal use.

CHEMICAL STABILITY
Stable. Polymerization will not occur.

POSSIBLITY OF HAZARDOUS REACTIONS
Avoid prolonged contact with reactive metals such as magnesium and zinc, especially in closed systems where hydrogen gas from the oxidation of these materials may accumulate over time.

INCOMPATIBLE MATERIALS
Strong oxidizing agents; strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS
May decompose into oxides of carbon.

Section 11: TOXICOLOGICAL INFORMATION

ACURTE TOCICITY

LD50 rat-oral: 300 mg/kg
LC50 rat-inhalation: >5000 mg/m3
LD50 rat-dermal: >5000 mg/kg
Dermal irritation rabbit: Non-irritating
Ocular irritation rabbit: Moderate redness/discharge and some swelling of iris at 1 hr.; insignificant signs of irritation at 24 hr.; all signs cleared at 72 hr.
Sub-chronic oral: No effects after 28 consecutive days dosing at 100 mg/kg/day.

LIKELY ROUTES OF EXPOSURE

Skin contact, eye contact, ingestion

SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL, AND TOXICOLOGICAL CHARACTERISTICS

Eye	May cause eye irritation. Symptoms may include temporary discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Skin	May cause itching or irritation of any cut or abraded skin. Symptoms of prolonged contact may include dry skin.
Inhalation	Inhalation of dust during handling may cause respiratory tract irritation and coughing. This product is not otherwise expected to be an inhalation hazard.
Ingestion	Ingestion of large quantities may cause nausea, vomiting, diarrhea and abdominal discomfort.

DELAYED AND IMMEDIATE EFFECTS AND CHRONIC EFFECTS FROM SHORT- AND LONG-TERM EXPOSURE/NUMERICAL MEASURES OF TOXICITY

Skin Corrosion/Irritation	Based on available data, the classification criteria are not met.
Serious Eye Damage/Irritation	Based on available data, the classification criteria are not met.
Respiratory or Skin Sensitization	Based on available data, the classification criteria are not met.
Germ Cell Mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	This product does not contain any ingredients that are considered to be carcinogens by IARC, NTP, or OSHA.
Reproductive Toxicity	Based on available data, the classification criteria are not met.
STOT-Single Exposure	Based on available data, the classification criteria are not met.
STOT-Repeated Exposure	Based on available data, the classification criteria are not met.
Aspiration Hazard	Based on available data, the classification criteria are not met.

Section 12: ECOLOGICAL INFORMATION

ECOTOXICITY (AQUATIC AND TERRESTRIAL)

Not expected to cause long-term adverse effects in the aquatic or terrestrial environments.

PERSISTANCE AND DEGRADABILITY

Readily biodegradable. COD (TOD): 0.75 g O2/g deicer; BOD20 (2^{o}c): 0.40 g O2/g deicer, BOD20 (10^{o}C): 0.67

BIOACCUMULATIVE POTENTIAL

Bioaccumulation is not expected.

Section 13: DISPOSAL CONSIDERATIONS

WASTE TREATMENT AND METHODS OF DISPOSAL

Based on available information, this product is neither listed as a hazardous waste nor does it exhibit any of the characteristics that would cause it to be classified as a characterized waste under RCRA. This product may be absorbed onto suitable materials and disposed of in a sanitary landfill unless local, state, or provincial regulations prohibit such disposal.

Section 14: TRASPORT INFORMATION

TRANSPORT INFORMATION

Not regulated as dangerous goods per US DOT or IATA.

Section 15: REGULATORY INFORMATION

INVENTORY LISTS

All of the components in this product are on the following inventory lists: USA (TSCA), Canada (DSL/NDSL), Europe (EINECS)

TSCA SECTION 12(b)

None of these chemicals in this are listed under TSCA Section 12(b).

CERCLA HAZARDOUS SUBSTANCES

There is no CERCLA Reportable Quantity for this material

SARA 311 CATEGORIES

Immediate (Acute) Health Hazard:	Yes
Delayed (Chronic) Health Hazard:	No
Fire Hazard:	No
Sudden Release of Pressure Hazard:	No
Reactivity Hazard:	No

SARA 313

None of the components in this product are subject to reporting under SARA Section 313.

CLEAN WATER ACT

None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

STATE RIGHT-TO-KNOW

This product does not contain components at levels which are required to be reported under the statues of the following: PA, MA, MN, and NJ.
This product does not contain materials known to the State of California (Proposition 65) to cause cancer and/or reproductive harm at levels which would require a warming under the statue.

NFPA 704	
Health	1
Fire	0
Physical Hazard	0
Hazard Rating: 0-4 0-least hazardous; 4-most hazardous	

HMIS – Hazardous Materials Identification System	
Health	1
Fire	0
Physical Hazard	0
Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = serious, 4 = severe	

Section 16: OTHER INFORMATION

SDS REVISION DATE

Revision date: July 1, 2015

Expiration date: July 1, 2018

Latest version of this SDS can be obtained from Minerals International, LLC

NOTE TO EMPLOYER

This Safety Data Sheet contains environmental, health and toxicology information for your employees. Please ensure this information is provided to them. It also contains information to help you meet community right-to-know/emergency response reporting requirements under SARA Title III and many other laws. If you resell this product, this SDS must be given to the buyer or the information incorporated in you SDS. Discard any previous edition of this SDS.

DISCLAMIER

The above information is accurate to the best of our knowledge. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use or misuse are beyond our control, Minerals International, LLC makes no warranty, either express or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for the reliance thereon. Minerals International, LLC assumes no responsibility for any injury or loss resulting from the use of the product described herein. User should satisfy himself that he has all current data relevant to his particular use.

End of Safety Data Sheet

Safety Data Sheet

PURE LYE

SDS Revision Date: **07/01/2018**

1. Identification

1.1. Product identifier

Product Identity	COMSTAR PURE LYE
Alternate Names	30-525, 30-528, 30-529 (Flakes) 30-500, 30-501, 30-502, 30-503 (Beads) Blended Formula, PURE LYE

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	See Technical Data Sheet.
Application Method	See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name	ComStar International Inc. 20-45 128th Street, College Point, NY 11356
Telephone No.	718-445-7900 800-328-0142 Fax: 718-353-5998

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Skin Corr 1A; H314	Causes severe skin burns and eye damage.
Eye Dam. 1; H318	Causes serious eye damage.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



Warning

H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

[Prevention]:

P260 Do not breathe mist / vapors / spray.
P264 Wash thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.

[Response]:

P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+361 +353 IF ON SKIN (or hair): Remove I Take off immediately all contaminated clothing. Rinse skin with water / shower.

P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+351 +338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P310 Immediately call a POISON CENTER or doctor / physician.

P363 Wash contaminated clothing before reuse.

[Storage]:

P405 Store locked up.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
SODIUM HYDROXIDE CAS #: 1310-73-2	99.9	Skin Corr. 1B H314 Eye Dam. 1 H318 Aquatic Acute 3 H402	[1][2]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.
[1] Substance classified with a health or environmental hazard.
[2] Substance with a workplace exposure limit.
[3] PBT-substance or vPvB-substance.
*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation Move victim to fresh air. Give artificial respiration ONLY if breathing has stopped. Give Cardiopulmonary Resuscitation (CPR) if there is no breathing AND no pulse. Obtain medical attention IMMEDIATELY.

Eyes Immediately flush eyes with running water for a minimum of 20 minutes. Hold eyelids open during flushing. If irritation persists, repeat flushing. Obtain medical attention IMMEDIATELY. Do not transport victim until the recommended flushing period is completed unless flushing can be continued during transport.

Skin Flush skin with running water for a minimum of 20 minutes. Start flushing while removing contaminated clothing. If irritation persists, repeat flushing. Obtain medical attention IMMEDIATELY. Do not transport victim unless the recommended flushing period is completed or flushing can be continued during transport.



While the patient is being transported to a medical facility, apply compresses of iced water. If medical treatment must be delayed, immerse the affected area in iced water. If immersion is not practical, compresses of iced water can be applied. Avoid freezing tissues.

Ingestion If victim is alert and not convulsing, rinse mouth and give % to 1 glass of water to dilute material. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more water. IMMEDIATELY contact local poison control center. Vomiting may need to be induced but should be directed by a physician or a poison control center. IMMEDIATELY transport victim to an emergency facility.

4.2. Most important symptoms and effects, both acute and delayed

Overview **IMMEDIATE CONCERNS:** CAUTION: May cause eye or skin burns. Avoid vapor.
POTENTIAL SIDE EFFECTS
EYES: Tissue destruction and permanent eye damage may occur if not treated immediately.
SKIN: May be corrosive and cause severe burns.
INGESTION: Corrosive to mucous membranes of the mouth, esophagus, stomach & throat.
INHALATION: Avoid mist, can be a severe irritant.
ACUTE TOXICITY: Eye, skin, lung burning may be caused with exposure to mist. Avoid mist.
TARGET ORGAN STATEMENT: Contains material which may cause damage to gastrointestinal tract and respiratory tract.

Note to Physician: All treatments should be based on observed signs and symptoms of distress in the patient. Medical conditions that may be aggravated by exposure include asthma, bronchitis, emphysema and other lung diseases and chronic nose, sinus or throat conditions. Severity of the burn is generally determined by the concentration of the solution and the duration of exposure. In the event of skin or eye contact, immediate and thorough flushing is essential. Continued washing of the affected area with cold or iced water will be helpful in removing the last traces of sulfuric acid. Cream or ointments should not be applied before or during the washing phase of the treatment. See section 2 for further details.

Eyes Causes serious eye damage.

Inhalation Causes serious eye damage.

5. Fire-fighting measures

5.1. Extinguishing media

For small fires, use dry chemical or carbon dioxide. For large fires, flood fire area with water from a distance. Expect violent reaction with water. Do not get solid stream of water on spilled material.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Oxides of sulfur at high temperatures. Hazardous gases may evolve on contact with chemicals such as cyanides, sulfides, and carbides.

Do not breathe mist / vapors / spray.

5.3. Advice for fire-fighters

Wear self-contained breathing apparatus and protective clothing.

ERG Guide No. ---137

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

For Large Spills: Flush spill area with water spray. Prevent run-off from entering drains, sewers, or streams, collect run-off.

7. Handling and storage

7.1. Precautions for safe handling

Wear appropriate Personal Protection Equipment. Do not breathe sprays or mists. Do not ingest. Do not get in eyes, on skin or on clothing. Keep ignition sources away from sulfuric acid storage, handling and transportation equipment.

Handling Procedures and Equipment: Carbon steel or stainless-steel materials are suitable for use for acid concentrations equal to or greater than 93%. However, the effect of lower concentrations on the materials of construction can be very complex. Contact product supplier for specific recommendations when handling sulfuric acid at strengths less than 77%.

Sulfuric acid will attack some forms of plastics and coatings. Always add acid to water - not water to acid. If kept in upper floors of building, floors should be acid proof with drains to a recovery tank.
See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Store between -5C and 40C.

Incompatible materials: Acids react with most metals to release hydrogen gas which can form explosive mixtures in air. Water, alkaline solutions, metals, metal powder, carbides, chlorates, fulminates, nitrates, picrates, strong oxidizers, reducers, or combustible organics.
Hazardous gases may evolve on contact with chemicals such as cyanides, sulfides, and carbides.
Storage Temperature: Store above freezing point. Elevated temperatures will increase the corrosion rate of most metals.

Storage Requirements: Store packaged acid in a dry, well, ventilated location away from combustibles, oxidizers, bases, or metallic powders. Storage tanks should be protected from water ingress, be well ventilated, and maintained structurally in a safe and reliable condition.

See section 2 for further details. - [Storage]:



7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
1310-73-2	SODIUM HYDROXIDE	OSHA	2 mg/m³
		ACGIH	2 mg/m³
		NIOSH	No Established Limit
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value
1310-73-2	SODIUM HYDROXIDE	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure controls

Respiratory A NIOSH/MSHA approved air-purifying respirator equipped with acid gas/fume, dust, and mist cartridges for concentrations up to 10 mg 1m3. An air-supplied respirator if concentrations are higher or unknown.

Eyes Tight-fitting chemical goggles and face shield.

Skin Impervious (Le., neoprene, PVC) gloves, coveralls, boots and/or other acid resistant protective clothing.

Engineering Controls Local exhaust ventilation required.

Other Work Practices Where there is a danger of spilling or splashing, acid resistant aprons or suits should be worn. Trouser legs should be worn outside (not tucked in) rubber boots. Safety showers and eyewash fountains should be installed in storage and handling areas. Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:



9. Physical and chemical properties

Appearance	White Beads / Flakes
Odor	Sharp
Odor threshold	Not Measured
pH	Not Measured
Melting point / freezing point	77.67%: -11.2C (+11.6F); 93.19%: - 29.5C (- 21.1F) 98%: 1-1C (30F)
Initial boiling point and boiling range	77.67%: 193C (380F); 93.19: 276C (529F) 98%: 330 (626F)
Flash Point	None
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	**Lower Explosive Limit:** 135C(275F): NA **Upper Explosive Limit:** 199C(390F): NA
Vapor pressure (Pa)	77.67 % 1.2mmhg; 93.19% : 0.0016 mmhg; 98% 0.002 mmhg (at 40C/102F)
Vapor Density	3.4, sulfuric acid component (Air = 1)
Specific Gravity	77.67%: 1.7059; 93.19% 1.8354; 98%: (at 15C/ 60F)
Solubility in Water	Insoluble
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	(ASTM D 2155): Not combustible
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured
Volatiles (% by weight)	NA
Octanol/Water Partition Coefficient	NA

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

Reacts with some bases.

10.4. Conditions to avoid

Keep away from extreme heat and extreme cold.

10.5. Incompatible materials



Acids react with most metals to release hydrogen gas which can form explosive mixtures in air. Water, alkaline solutions, metals, metal powder, carbides, chlorates, fulminates, nitrates, picrates, strong oxidizers, reducers, or combustible organics.
Hazardous gases may evolve on contact with chemicals such as cyanides, sulfides, and carbides.

10.6. Hazardous decomposition products

Oxides of sulfur at high temperatures. Hazardous gases may evolve on contact with chemicals such as cyanides, sulfides, and carbides.

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
SODIUM HYDROXIDE (1310-73-2)	No data available	1350 mg/kg Rabbit;	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	1A	Causes severe skin bums and eye damage.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

12. Ecological information

12.1. Toxicity

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and GHS and is not classified as dangerous for the environment but contains substance(s) dangerous for the environment. See section 3 for details

Aquatic Ecotoxicity

Ingredient	96 hr. LC50 fish, mg/l	48 hr. EC50 crustacea, mg/l	ErC50 algae, mg/l
SODIUM HYDROXIDE (1310-73-2)	45.4 mg/l	40.4 mg/l	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

NOTE: Containers holding less than 1 kilo (2.2 lbs.) are shipped as non-hazardous ORM-d. Below data is for containers holding greater than 2.2 lbs.

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	UN 1823	UN 1823	UN 1823
14.2. UN proper shipping name	UN 1823, Sodium Hydroxide, Solid, 8, II	UN 1823, Sodium Hydroxide, Solid	UN 1823, Sodium Hydroxide, Solid
14.3. Transport hazard class(es)	**DOT Hazard Class: 8**	**IMDG:** 8 **Sub Class:** Not Applicable	**Air Class: 8**
14.4. Packing group	II	II	II

14.5. Environmental hazards

IMDG Marine Pollutant: No

14.6. Special precautions for user



No further information

15. Regulatory information

Regulatory Overview	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.
Toxic Substance Control Act (TSCA)	All components of this material are either listed or exempt from listing on the TSCA Inventory.
WHMIS Classification	D2B E
US EPA Tier II Hazards	**Fire:** No
	Sudden Release of Pressure: No
	Reactive: Yes
	Immediate (Acute): Yes
	Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs: (lbs)

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Extremely Hazardous:

SODIUM HYDROXIDE

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%): To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%): To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

SODIUM HYDROXIDE

Pennsylvania RTK Substances (>1%):

SODIUM HYDROXIDE

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H314 Causes severe skin burns and eye damage.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

The opinions expressed are those of qualified experts within ComStar International Inc. We believe that the information contained is current as of the date of the Safety Data Sheet. Since the use of this information and of these opinions and the conditions of the use of the product are not within the control of ComStar International Inc., it is the user's obligation to determine the conditions of safe use of the product.

End of Document

FLINN SCIENTIFIC, INC.
Safety Data Sheet (SDS)

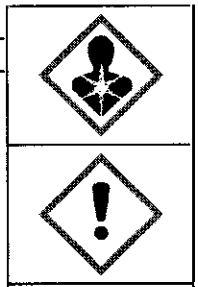
SDS #: 263.00
Revision Date: March 21, 2014

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Congo Red

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261
CHEMTREC Emergency Phone Number: (800) 424-9300 **Signal Word** **DANGER**

Pictograms



SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Carcinogenicity (Category 1). May cause cancer (H350). Obtain special instructions before use (P201). Do not handle until all safety precautions have been read and understood (P202). Use personal protective equipment as required (P281). A probable human carcinogen (IARC-2A).

Hazard class: Reproductive toxicity (Category 2). May damage fertility or the unborn child (H361). Obtain special instructions before use (P201).

Hazard class: Serious eye damage or irritation (Category 2A). Causes serious eye irritation (H319).

SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Congo red	573-58-0	$C_{32}H_{22}N_6Na_2O_6S_2$	696.67	
Synonyms: Direct red 28; Cotton red; C.I. 22120				

SECTION 4 — FIRST AID MEASURES

If exposed or concerned: Get medical advice or attention (P308+P313).
If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338). **If eye irritation persists:** Get medical advice or attention (P337+P313).
If on skin: Wash with plenty of water.
If swallowed: Rinse mouth. Call a POISON CENTER or physician if you feel unwell.

SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable solid.
When heated to decomposition, may emit toxic fumes.
In case of fire: Use a tri-class dry chemical fire extinguisher.

NFPA CODE
None established

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Sweep up the spill, place in a sealed bag or container, and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

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SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Organic #9. Store with dyes, indicators and stains.
Keep container tightly closed. Store in a cool, dry place.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling (P264). Will stain skin, clothing, and surfaces.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Dark brown-red powder. Odorless.
Soluble: Water and alcohol

Absorbance maximum: 497 nm
Biological stain.
pH indicator: 3.0 blue to 5.0 red.

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with strong oxidizers.
Shelf life: Indefinite, if stored properly.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Toxic and eye irritant.
Chronic effects: N.A.
Target organs: N.A.

ORL-RAT LD_{50}: 15,200 mg/kg
IHL-RAT LC_{50}: N.A.
SKN-RBT LD_{50}: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply before proceeding.
Flinn Suggested Disposal Method #26a is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Not regulated. Hazard class: N/A. UN number: N/A.

N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

TSCA-listed, EINECS-listed (209-358-4).

SECTION 16 — OTHER INFORMATION

This Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific, Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

Consult your copy of the *Flinn Science Catalog/Reference Manual* for additional information about laboratory chemicals.

Revision Date: March 21, 2014

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FLINN SCIENTIFIC, INC.
Safety Data Sheet (SDS)

SDS #: 281.00
Revision Date: December 31, 2013

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Copper(II) Chloride, Anhydrous

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261
CHEMTREC Emergency Phone Number: (800) 424-9300 **Signal Word** **WARNING**

Pictograms



SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Acute toxicity, oral (Category 4). Harmful if swallowed (H302). Do not eat, drink or smoke when using this product (P270).

Hazard class: Skin and serious eye damage, corrosion or irritation (Category 2, 2A). Causes skin and serious eye irritation (H315+H319).

Hazard class: Specific target organ toxicity, single exposure; Respiratory tract irritation (Category 3). May cause respiratory irritation (H335). Avoid breathing dust or fumes (P261).

SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Copper(II) chloride, anhydrous	7447-39-4	$CuCl_2$	134.45	
Synonyms: Cupric chloride, Copper dichloride				

SECTION 4 — FIRST AID MEASURES

If exposed or concerned: Get medical advice or attention (P308+P313).
If inhaled: Remove victim to fresh air in a position comfortable for breathing (P304+P340).
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338). If eye irritation persists: Get medical advice or attention (P337+P313).
If on skin: Rinse cautiously with water for several minutes (P351).
If swallowed: Rinse mouth. Call a POISON CENTER or physician if you feel unwell.

SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable solid.
When heated to decomposition, may emit toxic fumes.
In case of fire: Use tri-class dry chemical fire extinguisher.

NFPA CODE
None established

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Sweep up the spill, place in a sealed bag or container, and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

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SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Inorganic #2. Store with acetates, halides, sulfates, sulfites, thiosulfates, and phosphates.
Deliquescent. Store in a cool, dry place within a Flinn Chem-Saf™ bag. Keep container tightly closed (P233).

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection (P280). Wash thoroughly after handling (P264).

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Olive-tan powder or crystals. Slight vanilla odor.
Soluble: Water and alcohol

Melting point: 620 °C
Specific gravity: 3.4

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with moisture and alkali metals.
Shelf life: Poor, deliquescent. See Section 7 for further information.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Toxic, irritant, and gastrointestinal disturbances.
Chronic effects: N.A.
Target organs: N.A.

ORL-RAT LD_{50}: 584 mg/kg
IHL-RAT LC_{50}: N.A.
SKN-RBT LD_{50}: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply before proceeding.
Flinn Suggested Disposal Method #26a is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Copper Chloride. Hazard class: 8, Corrosive. UN number: UN2802.

N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

TSCA-listed, EINECS-listed (231-210-2).

SECTION 16 — OTHER INFORMATION

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Section 1 Chemical Product and Company Information

ward's science
5100 West Henrietta Rd
PO Box 92912
Rochester, NY 14692-9012
Tel: (800) 962-2660

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300
For laboratory use only.
Not for drug, food or household use.

Product	**COPPER(II) CHLORIDE, ANHYDROUS**
Synonyms	Cupric Chloride, Anhydrous

Section 2 Hazards Identification

Signal word: DANGER
Pictograms: GHS06 / GHS07 / GHS09
Target organs: Respiratory system, Liver, Kidneys.



GHS Classification:
Acute toxicity-oral (Category 3)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Aquatic acute toxicity (Category 1)
Aquatic chronic toxicity (Category 1)

GHS Label information: Hazard statement:
H301: Toxic if swallowed.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statement:
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P310: IF SWALLOWED: Rinse mouth. Immediately call a POISON CENTER or doctor.
P302+P352: IF ON SKIN: Wash with plenty of water and soap.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P337+P313: If eye irritation persists: Get medical advice/attention.
P362+P364: Take off contaminated clothing and wash before reuse.
P391: Collect spillage.
P405: Store locked up.
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Cupric chloride, anhydrous	7447-39-4	>98%	231-210-2 (anhydrous)

Section 4 First Aid Measures

INGESTION: HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: MAY BE HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: CAUSES SEVERE EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

(2012 EMERGENCY RESPONSE GUIDEBOOK, (PHH50-ERG2012), GUIDE # 154)

Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 Exposure Controls / Personal Protection

Exposure Limits:

Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Copper, dusts and mists, as Cu	TWA: 1 mg/m^3	TWA: 1 mg/m^3	TWA: 1 mg/m^3

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Appearance: Yellow-brown, crystalline solid
Odor: Odorless
Odor threshold: Data not available
pH: Data not available
Melting / Freezing point: 100°C (230°F)
Boiling point: Decomposes
Flash point: Non-flammable

Evaporation rate (= 1): Not applicable
Flammability (solid/gas): Not applicable
Explosion limits: Lower / Upper: Not applicable
Vapor pressure (mm Hg): Data not available
Vapor density (Air = 1): Data not available
Relative density (Specific gravity): 2.54
Solubility(ies): Soluble in water

Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: Data not available
Viscosity: Data not available.
Molecular formula: $CuCl_2$
Molecular weight: 134.45

Section 10 Stability & Reactivity

Chemical stability: Stable
Hazardous polymerization: Will not occur.
Conditions to avoid: Hygroscopic material. Avoid exposure or contact to extreme temperatures and incompatible materials.

Incompatible materials: Potassium, sodium, hydrazine, nitromethane, aluminum, strong oxidizers, acetylene and sodium hypobromite.

Hazardous decomposition products: Copper oxides and hydrogen chloride.

Section 11 Toxicological Information

Acute toxicity: Oral-rat LD50: 290 mg/kg ; Oral-human LD50: 200 mg/kg
Skin corrosion/irritation: Data not available
Serious eye damage/irritation: Data not available
Respiratory or skin sensitization: Data not available
Germ cell mutagenicity: Data not available
Carcinogenity: Data not available
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity: Data not available
STOT-single exposure: Data not available
STOT-repeated exposure: Data not available
Aspiration hazard: Data not available
Potential health effects:
Inhalation: Symptoms of over-exposure may include irritation, sore throat, shortness of breath, ulceration and perforation of the nasal septum and upper respiratory tract irritation.
Ingestion: May cause gastrointestinal irritation with symptoms such as nausea, vomiting and diarrhea.
Skin: Contact with skin may cause symptoms of itching, redness, blistering and possible scarring, dermatitis.
Eyes: Contact with eyes may cause redness, pain and blurred vision. Prolonged contact may cause corneal injury.
Signs and symptoms of exposure: Copper salts impart a metallic taste in the mouth. Damage to the kidneys may occur in person's with Wilson's disease. High concentrations in contact with skin may result in burns. Chronic exposure may also lead to liver damage, anemia and other blood cell abnormalities.
Additional information: RTECS #: GL7030000

Section 12 Ecological Information

Toxicity to fish: Bluegill LC50: 0.9 mg/L/96 hours
Toxicity to daphnia and other aquatic invertebrates: Daphnia magna EC50: 0.04 mg/L/48 hours
Toxicity to algae: Selenastrum EC50: 0.12 mg/L/96 hours
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
PBT and vPvB assessment: No data available
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information

UN/NA number: UN2802
Shipping name: Copper chloride
Hazard class: 8
Packing group: III
Reportable Quantity: 10 lbs (4.54 kg)
Marine pollutant: Yes
Exceptions: Limited quantity equal to or less than 4.539 Kg ; Reportable quantity equal to or more than 4.54 Kg
2012 ERG Guide # 154

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	WHMIS Classification
Cupric chloride (anhydrous)	Listed	10 lbs (4.54 kg)	Not listed	Listed	Not listed	D2A ; D2B

Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Revision Date: August 28, 2013 **Supercedes:** February 4, 2013

FLINN SCIENTIFIC, INC.
Safety Data Sheet (SDS)

SDS #: 283.00
Revision Date: March 27, 2014

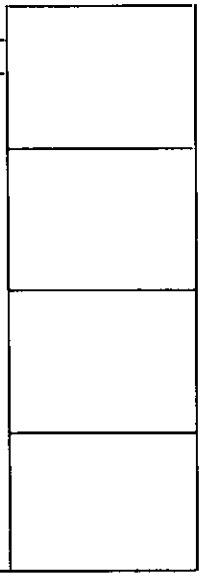
SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Copper(II) Nitrate Solution

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261
CHEMTREC Emergency Phone Number: (800) 424-9300

Signal Word **WARNING**

Pictograms



SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Skin corrosion or irritation (Category 3). Causes mild skin irritation (H316).

Hazard class: Serious eye damage or irritation (Category 2B). Causes eye irritation (H320).

SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Copper(II) nitrate trihydrate	10031-43-3	$Cu(NO_3)_2 \cdot 3H_2O$	241.60	<1-25%
Water	7732-18-5	H_2O	18.00	75-99%

SECTION 4 — FIRST AID MEASURES

Call a POISON CENTER or physician if you feel unwell.
If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338). **If eye irritation persists:** Get medical advice or attention (P337+P313).
If on skin: Wash with plenty of water. **If skin irritation occurs:** Get medical advice or attention (P332+P313).
If swallowed: Rinse mouth. Call a POISON CENTER or physician if you feel unwell.

SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable, noncombustible solution.
In case of fire: Use a tri-class dry chemical fire extinguisher.

NFPA CODE
None established

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Ventilate area. Contain the spill with sand or absorbent material and deposit in a sealed bag or container. See Sections 8 and 13 for further information.

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SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Inorganic #3. Store with amides, nitrates, nitrites and azides.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection. Wash hands thoroughly after handling (P264).

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Clear blue liquid. Odorless.

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with strong reducing agents.
Shelf life: Good, if stored properly.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Corrosive.
Chronic effects: N.A.
Target organs: N.A.

ORL-RAT LD_{50}: 940 mg/kg as cupric nitrate
IHL-RAT LC_{50}: N.A.
SKN-RBT LD_{50}: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply before proceeding.
Flinn Suggested Disposal Method #26b is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Not regulated. Hazard class: N/A. UN number: N/A.

N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

Not listed.

SECTION 16 — OTHER INFORMATION

This Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific, Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

Consult your copy of the *Flinn Science Catalog/Reference Manual* for additional information about laboratory chemicals.

Revision Date: March 27, 2014

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Section 1 Chemical Product and Company Identification

Aldon Corporation
221 Rochester Street
Avon, NY 14414
(585) 226-6177

CHEMTREC 24 Hour Emergency
Phone Number (800) 424-9300
For laboratory use only.
Not for drug, food or household use.

Product	**COPPER(II) NITRATE, 0.1 MOLAR SOLUTION**
Synonyms	Cupric Nitrate, Water Solution

Section 2 Hazards Identification

Signal word: WARNING
Pictograms: GHS07 / GHS09
Target organs: Liver



GHS Classification:
Acute toxicity, oral (Category 5)
Skin irritation (Category 2)
Eye irritation (Category 2B)
Aquatic acute (Category 1)
Aquatic chronic (Category 1)

GHS Label information: **Hazard statement:**
H303: May be harmful if swallowed.
H315: Causes skin irritation.
H320: Causes eye irritation.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statement:
P264: Wash hands thoroughly after handling.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical attention.
P302+P352: IF ON SKIN: Wash with plenty of water and soap.
P332+P313: If skin irritation occurs: Get medical attention.
P362+P364: Take off contaminated clothing and wash it before reuse.
P391: Collect spillage.
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Water	7732-18-5	97.584%	231-791-2
Cupric nitrate, trihydrate	10031-43-3	2.416%	221-838-5 [anhydrous]

Section 4 First Aid Measures

INGESTION: MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: MAY CAUSE RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: CAUSES EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: In fire conditions, water may evaporate from this solution which may cause hazardous decomposition products to be formed as dust or fume.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale vapors, spray or mist. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, well-ventilated area away from incompatible substances.

Section 8 Exposure Controls / Personal Protection

Exposure Limits:

Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Copper, dusts & mists, as Cu	TWA: 1 mg/m^3	TWA: 1 mg/m^3	TWA: 1 mg/m^3

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Appearance: Clear, colorless liquid.
Odor: No odor.
Odor threshold: Data not available.
pH: Data not available.
Melting / Freezing point: Approximately 0°C (32°F) (water)
Boiling point: Approximately 100°C (212°F) (water)
Flash point: Data not available

Evaporation rate (Water = 1): <1
Flammability (solid/gas): Data not available.
Explosion limits: Lower / Upper: Data not available
Vapor pressure (mm Hg): 14 (water)
Vapor density (Air = 1): 0.7 (water)
Relative density (Specific gravity): Approximately 1.0 (water)
Solubility(ies): Complete in water.

Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: Data not available.
Viscosity: Data not available.
Molecular formula: Mixture
Molecular weight: Mixture

Section 10 Stability & Reactivity

Chemical stability: Stable
Hazardous polymerization: Will not occur.
Conditions to avoid: Excessive temperatures which cause evaporation.

Incompatible materials: Strong oxidizing agents, aluminum cyanides, esters, sodium hypophosphite, stannous chloride and thiocyanates.

Hazardous decomposition products: Nitrogen oxides, copper oxides and copper dust.

Section 11 Toxicological Information

Acute toxicity: Oral-rat LD50: 940 mg/kg [Cupric nitrate]
Skin corrosion/irritation: Data not available
Serious eye damage/irritation: Data not available
Respiratory or skin sensitization: Data not available
Germ cell mutagenicity: Data not available
Carcinogenity: Data not available
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity: Data not available
STOT-single exposure: Data not available
STOT-repeated exposure: Data not available
Aspiration hazard: Data not available
Potential health effects:
Inhalation: Harmful if inhaled.
Ingestion: Harmful if swallowed.
Skin: Contact with skin causes irritation and/or burns.
Eyes: Contact with eyes causes irritation and/or burns.
Signs and symptoms of exposure: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Exercise appropriate procedures to minimize potential hazards.
Additional information: RTECS #: GL7875000 [Cupric nitrate]

Section 12 Ecological Information

Toxicity to fish: No data available
Toxicity to daphnia and other aquatic invertebrates: No data available
Toxicity to algae: No data available
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
PBT and vPvB assessment: No data available
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number: Not applicable
Shipping name: Not Regulated
Hazard class: Not applicable
Packing group: Not applicable
Reportable Quantity: No
Marine pollutant: No
Exceptions: Not applicable
2012 ERG Guide # Not applicable

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL
Cupric nitrate	Listed	100 lbs (45.4 kg)	Not listed	Listed	Not listed

Section 16 Other Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Revision Date: January 18, 2016 **Supercedes:** December 28, 2012

Section 1 L'identification de produit chimique et de compagnie

Aldon Corporation
221 Rochester Street
Avon, NY 14414
(585) 226-6177

CHEMTREC 24 Numéros De Téléphone
De Secours D'Heure (800) 424-9300
Pour l'usage de laboratoire seulement.
Pas pour l'usage de drogue, de nourriture
ou de ménage.

Produit	**NITRATE CUIVRE(II), SOLUTION DE 0.1 MOLAIRE**
Synonymes	Nitrate cuivrique, solution de l'eau

Section 2 Identification De Risques

Mention d'avertissement: AVERTISSEMENT
Pictogrammes: GHS07 / GHS09
Les organes cibles: Le foie



Classification par le GHS:
Acute toxicity, oral (Catégorie 5)
Skin irritation (Catégorie 2)
Eye irritation (Catégorie 2A)
Aquatic acute (Catégorie 1)
Aquatic chronic (Catégorie 1)

Renseignements sur l'étiquette GHS: Mention de danger:
H303: Peut être nocif en cas d'ingestion.
H315: Provoque une irritation cutanée.
H320: Provoque une irritation des yeux.
H410: Très toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.

Déclarations de précaution:
P264: Se laver les mains soigneusement après manipulation.
P273: Éviter le rejet dans l'environnement.
P280: Porter des gants de protection / des vêtements de protection / un équipement de protection des yeux / du visage.
P301+P312: EN CAS D'INGESTION: Appeler un CENTRE ANTIPOISON ou un médecin en cas de malaise.
P305+P351+P338: EN CAS DE CONTACT AVEC LES YEUX: Rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer.
P337+P313: Si l'irritation oculaire persiste: Obtenir des soins médicaux.
P302+P352: EN CAS DE CONTACT AVEC LA PEAU: Laver abondamment à l'eau et du savon.
P332+P313: En cas d'irritation cutanée: Obtenir des soins médicaux.
P362+P364: Enlever les vêtements contaminés et les laver avant réutilisation.
P391: Recueillir le produit répandu.
P501: Éliminer le contenu / récipient dans une agence agréée d'élimination chimique conformément à la réglementation locale / régionale / nationale.

CA Prop 65 - Ce produit ne contient pas de produits chimiques connus à l'État de Californie pour causer le cancer, des malformations congénitales, ou toute autre atteinte à la reproduction.

Section 3 Composition / Information Sur Des Ingrédients

Nommé Chimique	# CAS	%	EINECS
Water	7732-18-5	97.584%	231-791-2
Nitrate cuivrique, trihydrate	10031-43-3	2.416%	221-838-5 [anhydre]

Section 4 Mesures De Premiers Soins

INGESTION: PEUT ÊTRE NOCIF EN CAS D'INGESTION. Appeler un médecin ou un centre antipoison immédiatement. Provoquer le vomissement seulement si elle est informée par le personnel compétent médicaux. Ne jamais rien donner par la bouche à une personne inconsciente.

INHALATION: PEUT CAUSER UNE IRRITATION DE LA VOIES RESPIRATOIRE. Sortir au grand air. Si elle ne respire pas, pratiquer la respiration artificielle. Si la respiration est difficile, donner de l'oxygène. Obtenir des soins médicaux.

CONTACT AVEC LES YEUX: PROVOQUE UNE IRRITATION DES YEUX. Vérifier et enlever les lentilles de contact. Rincer abondamment à l'eau pendant au moins 15 minutes, en soulevant les paupières inférieures et supérieures de temps en temps. Obtenez une attention médicale immédiate.

ABSORPTION PAR LA PEAU: PEUT PROVOQUE UNE IRRITATION CUTANÉE. Enlever les vêtements contaminés. Rincer soigneusement avec du savon doux et d'eau. En cas d'irritation, consulter un médecin.

Section 5 Mesures De Lutte Contre l'Incendie

Moyens d'extinction: Utilisez des supports adaptés pour éteindre le feu à l'appui.

Actions de protection pour les sapeurs-pompiers: En cas d'incendie, porter un appareil respiratoire NIOSH / MSHA approuvé autonome et un équipement complet de protection. Utiliser un jet d'eau pour maintenir incendie refroidir les conteneurs exposés.

Dangers spécifiques: En cas de feu, de l'eau peut s'évaporer à partir de cette solution, qui peut causer les produits dangereux de décomposition à être formée comme poussière ou vapeur.

Section 6 Mesures De Déchargement Accidentel

Précautions personnelles: Évacuer le personnel vers la zone sûre. Utiliser un équipement de protection personnelle comme indiqué dans la Section 8. Assurer une ventilation adéquate.

Précautions environnementales: Éviter tout ruissellement vers les égouts pluviaux et les fossés qui aboutissent aux voies navigables.

Confinement et de nettoyage: Absorber avec un matériau inerte, balayer à sec ou sous vide et placer dans un récipient approprié pour l'élimination. Laver la zone de déversement avec du savon et de l'eau.

Section 7 Manipulation Et Stockage

Précautions pour la manutention en toute sécurité: Lire l'étiquette sur le contenant avant d'utiliser. Ne pas porter de lentilles cornéennes lorsque vous travaillez avec des produits chimiques. Tenir hors de portée des enfants. Éviter tout contact avec les yeux, la peau et les vêtements. Ne pas inhaler les vapeurs, les embruns ou le brouillard. Utiliser avec une ventilation adéquate. Éviter l'ingestion. Bien se laver après la manipulation. Retirer et laver les vêtements avant de les réutiliser.

Conditions de stockage: Stocker dans un endroit frais et bien aéré, loin des substances incompatibles.

Section 8 Commandes D'Exposition / Protection Personnelle

Limites d'exposition:

Nommé Chimique	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Cuivre, poussières et brumes, comme Cu	TWA: 1 mg/m^3	TWA: 1 mg/m^3	TWA: 1 mg/m^3

Contrôles d'ingénierie: Les installations d'entreposage ou d'utilisation de ce matériel doit être équipé d'une douche oculaire et une douche de sécurité et le matériel d'extinction d'incendie. Le personnel doit porter des lunettes de sécurité, des lunettes, ou un écran facial, une blouse de laboratoire ou tablier, des gants protecteurs appropriés. Utiliser une ventilation adéquate pour maintenir les concentrations atmosphériques faible.
Protection respiratoire: Aucun ne devrait être nécessaire dans le laboratoire normal manipulant aux températures ambiantes. Si les conditions brumeuses prévaloir, travailler dans la hotte ou de porter un masque respiratoire approuvé NIOSH / MSHA.

Section 9 Propriétés Physiques Et Chimiques

Apparence: Clair, liquide incolore.
Odeur: Aucun odeur.
Seuil de l'odeur: Données non disponibles.
pH: Données non disponibles.
Point de fusion / congélation: Environ 0°C (32°F) (eau)
Point d'ébullition: Environ 100°C (212°F) (eau)
Point d'éclair: Données non disponibles

Taux d'évaporation (Eau = 1): <1
Inflammabilité (solide / gaz): Données non disponibles.
Limites d'explosivité: Bas / Max: Données non disponibles
Pression de vapeur (mm Hg): 14 (eau)
Densité de vapeur (Air = 1): 0.7 (eau)
Densité relative (gravité spécifique): Environ 1.0 (eau)
Solubilité (s): Complet dans l'eau.

Coefficient de partage: Données non disponibles
Auto-inflammation: Données non disponibles
Température de décomposition: Données non disponibles.
Viscosité: Données non disponibles.
Formule moléculaire: Mélange
Poids moléculaire: Mélange

Section 10 Stabilité Et Réactivité

Stabilité chimique: Stable
Polymérisation dangereuse: N'aura pas lieu.
Conditions à éviter: Les températures excessives qui causent l'évaporation.

Matières incompatibles: Les agents comburante fortes, cyanures en aluminium, esters, hypophosphite de sodium, chlorure stanneux et sulfocyanates.

Produits dangereux de décomposition: L'oxydes d'azote, l'oxydes de cuivre, les poussieres de cuivre.

Section 11 L'Information Toxicologique

Toxicité aiguë: Oral-rat LD50: 940 mg/kg [Nitrate cuivrique]
La corrosion de la peau et l'irritation: Données non disponibles
Des lésions oculaires graves / irritation: Données non disponibles
Respiratoire ou sensibilisation de la peau: Données non disponibles
Mutagénicité des cellules germinales: Données non disponibles
Cancérogène: Données non disponibles
NTP: Aucun composant de ce produit présent à des niveaux supérieurs ou égaux à 0,1% n'a été identifié comme cancérigène reconnu ou présumé par NTP.
IARC: Aucun composant de ce produit présent à des niveaux supérieurs ou égaux à 0,1% n'a été identifié comme cancérigène probable, possible ou confirmé par IARC.
OSHA: Aucun composant de ce produit présent à des niveaux supérieurs ou égaux à 0,1% n'a été identifié comme cancérigène ni comme cancérigène possible par OSHA.
Reproductive toxicity: Données non disponibles
STOT-exposition unique: Données non disponibles
STOT-une exposition répétée: Données non disponibles
Risque d'aspiration: Données non disponibles
Effets d'une surexposition:
Inhalation: Nocif en cas d'inhalation.
Ingestion: Nocif en cas d'ingestion.
Peau: Contact avec la peau provoque une irritation et / ou des brûlures.
Yeux: Contact avec les yeux provoque une irritation et / ou des brûlures.
Les signes et les symptômes de l'exposition: Le produit est extrêmement destructeur pour le tissu des muqueuses et des voies respiratoires, des yeux et de la peau.
Procédures appropriées d'exercice pour réduire au minimum des risques
Informations complémentaires: RTECS #: GL7875000 [Nitrate cuivrique]

Section 12 L'Information Écologique

Toxicité pour les poissons: Pas de données disponible
Toxicité pour les daphnies et autres invertébrés aquatiques: Pas de données disponible
Toxicité pour les algues: Pas de données disponible
Persistance et dégradabilité: Pas de données disponible
Potentiel de bioaccumulation: Pas de données disponible
Mobilité dans le sol: Pas de données disponibles
Évaluation PBT et vPvB: Pas de données disponibles
Autres effets indésirables: Un danger pour l'environnement ne peut pas être exclu dans l'éventualité d'une manipulation ou d'élimination.

Section 13 Considérations De Disposition

Ces lignes directrices sont destinées à l'élimination de la disposition d'un catalogue de taille seules les quantités. Les règlements fédéraux peuvent s'appliquer aux contenants vides. Des réglementations nationales et / ou local peut être différent. Éliminer conformément à toutes les réglementations locales, provinciales et fédérales ou d'un contrat avec une agence élimination des produits chimiques sous licence.

Section 14 L'Information De Transport (US DOT / CANADA TMD)

Numéro UN / NA: Non applicable
Nom d'expédition: Non réglé
Classe de danger: Non applicable
Groupe d'emballage: Non applicable
Quantité à déclarer: Non
Polluant marin: Non
Exceptions: Non applicable
2012 ERG Guide #: Non applicable

Section 15 L'Information De Normalisation

Un produit chimique est considéré comme inscrit si le numéro CAS pour la forme anhydre est sur la liste d'inventaire.

Composant	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL
Nitrate cuivrique	Listed	100 lbs (45.4 kg)	Not listed	Listed	Not listed

Section 16 L'autre Information

Les informations contenues dans ce document sont fournis sans garantie d'aucune sorte. Les employeurs devraient considérer cette information seulement comme complément à d'autres informations recueillies par eux et doivent prendre des décisions indépendantes de la pertinence et l'exhaustivité de l'information de toutes les sources afin d'assurer une utilisation correcte de ces matériaux et de la sécurité et la santé des employés. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Date de révision: 19 janvier, 2016 **Remplace:** 28 decembre, 2012

Section 1 Chemical Product and Company Information

ward's science
5100 West Henrietta Rd
PO Box 92912
Rochester, NY 14692-9012
Tel: (800) 962-2660

CHEMTREC 24 Hour Emergency
Phone Number (800) 424-9300
For laboratory use only.
Not for drug, food or household use.

Product	**COPPER(II) NITRATE, TRIHYDRATE**
Synonyms	Cupric Nitrate, Trihydrate

Section 2 Hazards Identification

Signal word: DANGER
Pictograms: GHS03 / GHS07 / GHS09
Target organs: Liver



GHS Classification:
Oxidizing solid (Category 2)
Acute toxicity, oral (Category 4)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Aquatic acute (Category 1)
Aquatic chronic (Category 1)

GHS Label information: Hazard statement:
H272: May intensify fire; oxidizer.
H302: Harmful if swallowed.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statement:
P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220: Keep away from clothing/incompatible/combustible materials.
P221: Take any precaution to avoid mixing with combustibles and reducing agents.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P312: IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor if you feel unwell.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical attention.
P302+P352: IF ON SKIN: Wash with plenty of water and soap.
P332+P313: If skin irritation occurs: Get medical attention.
P362+P364: Take off contaminated clothing and wash it before reuse.
P370+P378: In case of fire: Use dry chemical, alcohol foam, carbon dioxide or water spray to extinguish.
P391: Collect spillage.
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Cupric nitrate	10031-43-3	100%	221-838-5 [anhydrous]

Section 4 First Aid Measures

INGESTION: HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: CAUSES SERIOUS EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: CAUSES SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire.
Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.
Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Substance is a strong oxidizer which releases oxygen on heating. The oxygen will intensify any fire in the immediate surrounding. Contact with easily oxidizable, combustible substance or powdered metals may cause fire or explosion upon ignition from any source. Strong oxidizers may explode when shocked, or if exposed to heat, flame, or friction. Also may act as initiation source for dust or vapor explosions.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Recover for reuse if not contaminated. Remove all sources of ignition. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

(2012 EMERGENCY RESPONSE GUIDEBOOK, (PHH50-ERG2012), GUIDE # 140)

Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from ignition sources.

Section 8 Exposure Controls / Personal Protection

Exposure Limits:

Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Copper, dusts & mists, as Cu	TWA: 1 mg/m^3	TWA: 1 mg/m^3	TWA: 1 mg/m^3

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Appearance: Solid. Blue, deliquescent crystals
Odor: Slight nitric acid odor.
Odor threshold: Data not available.
pH: Data not available.
Melting / Freezing point: 114.5°C (238°F)
Boiling point: Data not available
Flash point: Non flammable

Evaporation rate (= 1): Data not available
Flammability (solid/gas): Data not available.
Explosion limits: Lower / Upper: Data not available
Vapor pressure (mm Hg): Negligible
Vapor density (Air = 1): 8.05
Relative density (Specific gravity): 2.32
Solubility(ies): Soluble in water.

Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: Data not available.
Viscosity: Data not available.
Molecular formula: $Cu(NO_3)_2 \cdot 3H_2O$
Molecular weight: 241.60

Section 10 Stability & Reactivity

Chemical stability: Stable
Hazardous polymerization: Will not occur.
Conditions to avoid: Avoid temperatures in excess of 338°F, which cause decomposition.

Incompatible materials: Strong oxidizing agents, aluminum cyanides, esters, sodium hypophosphite, stannous chloride and thiocyanates.

Hazardous decomposition products: Nitrogen oxides, copper oxides and copper dust.

Section 11 Toxicological Information

Acute toxicity: Oral-rat LD50: 940 mg/kg
Skin corrosion/irritation: Data not available
Serious eye damage/irritation: Data not available
Respiratory or skin sensitization: Data not available
Germ cell mutagenicity: Data not available
Carcinogenity: Data not available
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity: Data not available
STOT-single exposure: Data not available
STOT-repeated exposure: Data not available
Aspiration hazard: Data not available
Potential health effects:
Inhalation: Harmful if inhaled.
Ingestion: Harmful if swallowed.
Skin: Contact with skin causes irritation and/or burns.
Eyes: Contact with eyes causes irritation and/or burns.
Signs and symptoms of exposure: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Exercise appropriate procedures to minimize potential hazards.
Additional information: RTECS #: GL7875000

Section 12 Ecological Information

Toxicity to fish: No data available
Toxicity to daphnia and other aquatic invertebrates: No data available
Toxicity to algae: No data available
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
PBT and vPvB assessment: No data available
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number: UN1477
Shipping name: Nitrates, inorganic, n.o.s., (Cupric nitrate)
Hazard class: 5.1
Packing group: III
Reportable Quantity: 100 lbs (45.4 kg)
Marine pollutant: No
Exceptions: Limited quantity equal to or less than 5 Kg
2012 ERG Guide # 140

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	WHMIS Classification
Cupric nitrate	Listed	100 lbs (45.4 kg)	Not listed	Listed	Not listed	C ; D2B

Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Revision Date: May 23, 2013 **Supercedes:** January 17, 2011

Nasco
901 Janesville Ave.
P.O. Box 901
Fort Atkinson, WI 53538-0901

CHEMTREC 24 Hour Emergency
Phone Number (800) 424-9300
For laboratory use only.
Not for drug, food or household use.

Product	COPPER(II) NITRATE, TRIHYDRATE
Synonyms	Cupric Nitrate, Trihydrate

Signal word: DANGER
Pictograms: GHS03 / GHS07 / GHS09
Target organs: Liver



GHS Classification:
Oxidizing solid (Category 2)
Acute toxicity, oral (Category 4)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Aquatic acute (Category 1)
Aquatic chronic (Category 1)

GHS Label information: Hazard statement:
H272: May intensify fire; oxidizer.
H302: Harmful if swallowed.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statement:
P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220: Keep away from clothing/incompatible/combustible materials.
P221: Take any precaution to avoid mixing with combustibles and reducing agents.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P312: IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor if you feel unwell.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical attention.
P302+P352: IF ON SKIN: Wash with plenty of water and soap.
P332+P313: If skin irritation occurs: Get medical attention.
P362+P364: Take off contaminated clothing and wash it before reuse.
P370+P378: In case of fire: Use water to extinguish.
P391: Collect spillage.
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Chemical Name	CAS #	%	EINECS
Cupric nitrate	10031-43-3	100%	221-838-5 [anhydrous]

INGESTION: HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: CAUSES SERIOUS EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: CAUSES SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Suitable Extinguishing Media: Use water. Do not use dry chemicals or foams. CO_2 or Halon® may provide limited control.
Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.
Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Substance is a strong oxidizer which releases oxygen on heating. The oxygen will intensify any fire in the immediate surrounding. Contact with easily oxidizable, combustible substance or powdered metals may cause fire or explosion upon ignition from any source. Strong oxidizers may explode when shocked, or if exposed to heat, flame, or friction. Also may act as initiation source for dust or vapor explosions.

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Recover for reuse if not contaminated. Remove all sources of ignition. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

(2012 EMERGENCY RESPONSE GUIDEBOOK, (PHH80-ERG2012), GUIDE # 140)

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from ignition sources.

Exposure Limits:

Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Copper, dusts & mists, as Cu	TWA: 1 mg/m^3	TWA: 1 mg/m^3	TWA: 1 mg/m^3

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Appearance: Solid. Blue, deliquescent crystals
Odor: Slight nitric acid odor.
Odor threshold: Data not available.
pH: Data not available.
Melting / Freezing point: 114.5°C (238°F)
Boiling point: Data not available
Flash point: Non flammable

Evaporation rate (= 1): Data not available
Flammability (solid/gas): Data not available.
Explosion limits: Lower / Upper: Data not available
Vapor pressure (mm Hg): Negligible
Vapor density (Air = 1): 8.05
Relative density (Specific gravity): 2.32
Solubility(ies): Soluble in water.

Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: Data not available.
Viscosity: Data not available.
Molecular formula: $Cu(NO_3)_2{\cdot}3H_2O$
Molecular weight: 241.60

Chemical stability: Stable
Hazardous polymerization: Will not occur.
Conditions to avoid: Avoid temperatures in excess of 338°F, which cause decomposition.
Incompatible materials: Strong oxidizing agents, aluminum cyanides, esters, sodium hypophosphite, stannous chloride and thiocyanates.
Hazardous decomposition products: Nitrogen oxides, copper oxides and copper dust.

Acute toxicity: Oral-rat LD50: 940 mg/kg
Skin corrosion/irritation: Data not available
Serious eye damage/irritation: Data not available
Respiratory or skin sensitization: Data not available
Germ cell mutagenicity: Data not available
Carcinogenicity: Data not available
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity: Data not available
STOT-single exposure: Data not available
STOT-repeated exposure: Data not available
Aspiration hazard: Data not available
Potential health effects:
Inhalation: Harmful if inhaled.
Ingestion: Harmful if swallowed.
Skin: Contact with skin causes irritation and/or burns.
Eyes: Contact with eyes causes irritation and/or burns.
Signs and symptoms of exposure: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Exercise appropriate procedures to minimize potential hazards.
Additional information: RTECS #: GL7875000

Toxicity to fish: No data available
Toxicity to daphnia and other aquatic invertebrates: No data available
Toxicity to algae: No data available
Persistence and degradability: No data available
Mobility in soil: No data available
Bioaccumulative potential: No data available
PBT and vPvB assessment: No data available
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

UN/NA number: UN1477 **Shipping name:** Nitrates, inorganic, n.o.s., (Cupric nitrate)
Hazard class: 5.1 **Packing group:** III **Reportable Quantity:** 100 lbs (45.4 kg) **Marine pollutant:** No
Exceptions: Limited quantity equal to or less than 5 Kg **2012 ERG Guide #** 140

A chemical is considered to be listed if the CAS number for the anhydrous form is on the inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	WHMIS Classification
Cupric nitrate	Listed	100 lbs (45.4 kg)	Not listed	Listed	Not listed	C ; D2B

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Revision Date: August 25, 2014 **Supercedes:** May 23, 2013

FLINN SCIENTIFIC, INC.
Safety Data Sheet (SDS)

SDS #: 266.00
Revision Date: March 21, 2014

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Copper(II) Sulfate Stock Solution

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261
CHEMTREC Emergency Phone Number: (800) 424-9300

Signal Word **WARNING**

Pictograms



SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Acute toxicity, oral (Category 4). Harmful if swallowed (H302). Do not eat, drink or smoke when using this product (P270).

Hazard class: Acute toxicity, dermal (Category 5). May be harmful in contact with skin (H313).

Hazard class: Skin and serious eye damage, corrosion or irritation (Category 2, 2B). Causes skin and eye irritation (H315+H320).

SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Copper(II) sulfate pentahydrate	7758-99-8	$CuSO_4 \cdot 5H_2O$	249.69	20%
Water	7732-18-5	H_2O	18.00	80%

SECTION 4 — FIRST AID MEASURES

Call a POISON CENTER or physician if you feel unwell (P312).
If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338).
If on skin: Wash with plenty of water (P302+P352). **If skin irritation occurs:** Get medical advice or attention (P332+P313).
If swallowed: Rinse mouth. Call a POISON CENTER or physician if you feel unwell (P302+P301+P312).

SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable, noncombustible solution.
In case of fire: Use a tri-class dry chemical fire extinguisher.

NFPA CODE
None established

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Ventilate area. Contain the spill with sand or absorbent material and deposit in a sealed bag or container. See Sections 8 and 13 for further information.

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SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Inorganic #2. Store with acetates, halides, sulfates, sulfites, thiosulfates and phosphates.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling (P264).

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Blue liquid. Odorless.

pH: ~4
Specific gravity: 1.10

SECTION 10 — STABILITY AND REACTIVITY

Shelf life: Good, if stored properly.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Irritant and moderately toxic by ingestion.
Chronic effects: N.A.
Target organs: N.A.

ORL-RAT LD_{50}: 300 mg/kg as copper (II) sulfate
IHL-RAT LC_{50}: N.A.
SKN-RBT LD_{50}: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply before proceeding.
Flinn Suggested Disposal Method #26b is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Not regulated. Hazard class: N/A. UN number: N/A.

N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

Not listed.

SECTION 16 — OTHER INFORMATION

This Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific, Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

Consult your copy of the *Flinn Science Catalog/Reference Manual* for additional information about laboratory chemicals.

Revision Date: March 21, 2014

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FLINN SCIENTIFIC, INC.
Safety Data Sheet (SDS)

SDS #: 285.10
Revision Date: March 21, 2014

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Copper(II) Sulfate, Anhydrous

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261
CHEMTREC Emergency Phone Number: (800) 424-9300

Signal Word **DANGER**

Pictograms



SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Acute toxicity, oral (Category 3). Toxic if swallowed (H301). Do not eat, drink or smoke when using this product (P270).

Hazard class: Skin and serious eye damage, corrosion or irritation (Category 2, 2A). Causes skin and serious eye irritation (H315+H319).

SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Copper(II) sulfate, anhydrous	7758-98-7	$CuSO_4$	159.61	
Synonym: Cupric sulfate, anhydrous				

SECTION 4 — FIRST AID MEASURES

Immediately call a POISON CENTER or physician (P310).
If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338). **If eye irritation persists:** Get medical advice or attention (P337+P313).
If on skin: Rinse cautiously with water for several minutes (P351).
If swallowed: Rinse mouth. Immediately call a POISON CENTER or physician (P301+P330+P310).

SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable, noncombustible solid.
When heated to decomposition, may emit toxic fumes.
In case of fire: Use a tri-class dry chemical fire extinguisher.

NFPA CODE
None established

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Sweep up the spill, place in a sealed bag or container, and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

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SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Inorganic #2. Store with acetates, halides, sulfates, sulfites, thiosulfates and phosphates. Deliquescent. Store in a cool, dry place within a Flinn Chem-Saf™ bag.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling (P264).

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Off-white powder. Odorless.
Soluble: Water. Practically insoluble in alcohol.

Specific gravity: 3.6

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with moisture and finely powdered metals. Will corrode steel.
Shelf life: Poor, deliquescent. See Section 7 for further information.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Toxic, severe eye irritant, and gastrointestinal disturbances.
Chronic effects: Possible mutagen.
Target organs: Liver, kidneys, and blood.

ORL-RAT LD_{50}: 300 mg/kg
IHL-RAT LC_{50}: N.A.
SKN-RBT LD_{50}: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply before proceeding.
Flinn Suggested Disposal Method #26a is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Not regulated. Hazard class: N/A. UN number: N/A.

N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

TSCA-listed, EINECS-listed (231-847-6).

SECTION 16 — OTHER INFORMATION

This Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific, Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

Consult your copy of the *Flinn Science Catalog/Reference Manual* for additional information about laboratory chemicals.

Revision Date: March 21, 2014

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Safety Data Sheet

Copper (II) Sulfate, Anhydrous

CAROLINA®
www.carolina.com

Section 1 Product Description

Product Name:	Copper (II) Sulfate, Anhydrous
Recommended Use:	Science education applications
Synonyms:	Cupric Sulfate (1:1), Copper Monosulfate, Ssulfuric Acid Copper (2+) Salt, Cupric Sulfate Anhydrous
Distributor:	Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215-3398
Chemical Information:	800-227-1150 (8am-5pm (ET) M-F)
Chemtrec:	800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

WARNING



Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

GHS Classification:
Hazardous to the aquatic environment - Acute Category 1, Hazardous to the aquatic environment - Chronic Category 1, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2A, Acute Toxicity - Oral Category 4

Acute Toxicity Inhalation Gas Contains	100 % of the mixture consists of ingredient(s) of unknown toxicity
Acute Toxicity Inhalation Vapor Contains	100 % of the mixture consists of ingredient(s) of unknown toxicity
Acute Toxicity Inhalation Dust/Mist Contains	100 % of the mixture consists of ingredient(s) of unknown toxicity

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%
Copper (II) Sulfate, Anhydrous	7758-98-7	100

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation:	In case of accident by inhalation: remove casualty to fresh air and keep at rest.
Eyes:	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Ingestion:	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 5 Firefighting Procedures

Extinguishing Media:	Use media suitable to extinguish surrounding fire.
Fire Fighting Methods and Protection:	Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards:	Fire or excessive heat may produce hazardous decomposition products.
Hazardous Combustion Products:	Copper compounds

Section 6 Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill.
Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Do not allow the spilled product to enter public drainage system or open waterways. Collect spillage.

Section 7 Handling and Storage

Handling: Avoid release to the environment.
Storage: Keep container tightly closed in a cool, well-ventilated place.
Material is hygroscopic (absorbs moisture).
Storage Code: Green - general chemical storage

Section 8 Protection Information

	ACGIH		OSHA PEL	
Chemical Name	(TWA)	(STEL)	(TWA)	(STEL)
Copper (II) Sulfate, Anhydrous	1 mg/m3 TWA (dust and mist, as Cu)	N/A	N/A	N/A

Control Parameters
Engineering Measures: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.
Personal Protective Equipment (PPE): Lab coat, apron, eye wash, safety shower.
Respiratory Protection: No respiratory protection required under normal conditions of use.
Respirator Type(s): None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.
Eye Protection: Wear chemical splash goggles when handling this product. Have an eye wash station available.
Skin Protection: Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.
Gloves: No information available

Section 9 Physical Data

Formula: CuSO4
Molecular Weight: 159.6
Appearance: Pale Green Powder
Odor: Mild Pleasant, Floral
Odor Threshold: No data available
pH: No data available
Melting Point: 590 C
Boiling Point: 650 C
Flash Point: No data available
Flammable Limits in Air: No data available
Vapor Pressure: No data available
Evaporation Rate (BuAc=1): No data available
Vapor Density (Air=1): No data available
Specific Gravity: 3.60
Solubility in Water: Soluble
Log Pow (calculated): No data available
Autoignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: No data available
Percent Volatile by Volume: No data available

Section 10 Reactivity Data

Reactivity: Mildly reactive - See below
Chemical Stability: Stable under normal conditions.
Conditions to Avoid: Exposure to moisture
Incompatible Materials: Hydroxylamine, Hypobromite, Strong oxidizing agents
Hazardous Decomposition Products: Copper compounds
Hazardous Polymerization: Will not occur

Section 11 Toxicity Data

Routes of Entry Ingestion.
Symptoms (Acute): Hepatolenticular Degeneration (Wilson's Disease), Impaired Kidney Function, Liver disorders, Vomiting, Diarrhea, Hypotension
Delayed Effects: No data available

Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Copper (II) Sulfate, Anhydrous	7758-98-7	ORAL LD50 Rat 300 mg/kg	DERMAL LD50 Rabbit 1000 mg/kg	Not applicable

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
No data available	7758-98-7	Not listed	Not listed	Not listed

Chronic Effects:
Mutagenicity: No evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: No evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: No information available
Chronic: No information available

Section 12 Ecological Data

Overview: Extreme ecological hazard. This product may be highly toxic to plants and/or wildlife.
Mobility: This material is expected to have moderate mobility in soil. It absorbs to most soil types.
Persistence: Chemically Transformed, Dissolved into water, Adsorbs to soil.
Bioaccumulation: Bioconcentration is expected to occur.
Degradability: Does not biodegrade readily.
Other Adverse Effects: Mobility is dependant on environmental pH.

Chemical Name	CAS Number	Eco Toxicity
Copper (II) Sulfate, Anhydrous	7758-98-7	96 HR LC50 ONCORHYNCHUS MYKISS 0.1 MG/L

Section 13 Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s): Not Determined

Section 14 Transport Information

Ground - DOT Proper Shipping Name:
UN 3077
Environmentally Hazardous Substance, Solid, N.O.S
(Copper (II) Sulfate, Anhydrous)
Class 9
P.G. III

Air - IATA Proper Shipping Name:
UN 3077
Environmentally Hazardous Substance, Solid, N.O.S
(Copper (II) Sulfate, Anhydrous)
Class 9
P.G. III

Section 15 Regulatory Information

TSCA Status: All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Copper (II) Sulfate, Anhydrous	7758-98-7	No	10 lb RQ	10 lb final RQ; 4.54 kg final RQ	No	No

Section 16 Additional Information

Safety Data Sheet

Revised: 03/28/2013 **Replaces: None** **Printed: 06-21-2013**

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstract Service Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation
IARC	International Agency for Research on Cancer
N/A	Not Available
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
IDLH	Immediately dangerous to life and health

SAFETY DATA SHEET **SDS No.:** CC0535 **GENERAL STORAGE CODE GREEN**

Section 1 Chemical Product and Company Information

ward's science
5100 West Henrietta Rd
PO Box 92912
Rochester, NY 14692-9012
Tel: (800) 962-2660

CHEMTREC 24 Hour Emergency
Phone Number (800) 424-9300
For laboratory use only.
Not for drug, food or household use.

Product	**COPPER(II) SULFATE, PENTAHYDRATE**
Synonyms	Cupric Sulfate, 5-Hydrate

Section 2 Hazards Identification

Signal word: WARNING
Pictograms: GHS07 / GHS09
Target organs: Liver, Kidneys, Lungs, Spleen.



GHS Classification:
Acute toxicity-oral (Category 4)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Aquatic acute toxicity (Category 1)
Aquatic chronic toxicity (Category 1)

GHS Label information: Hazard statement:
H302: Harmful if swallowed.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statement:
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P312: IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor if you feel unwell.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313: If skin irritation occurs: Get medical attention.
P337+P313: If eye irritation persists: Get medical attention.
P362+P364: Take off contaminated clothing and wash it before reuse.
P391: Collect spillage.
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Cupric sulfate	7758-99-8	>99%	231-847-6 (anhydrous)

Section 4 First Aid Measures

INGESTION: MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: MAY BE HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: CAUSES SEVERE EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 Exposure Controls / Personal Protection

Exposure Limits:

Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Copper, dusts and mists, as Cu	TWA: 1 mg/m^3	TWA: 1 mg/m^3	TWA: 1 mg/m^3

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Appearance: Blue, crystalline solid
Odor: Odorless
Odor threshold: Data not available
pH: 3.7-4.2 (10% solution)
Melting / Freezing point: 150°C (302°F)
Boiling point: Decomposes
Flash point: Non-flammable

Evaporation rate (= 1): Not applicable
Flammability (solid/gas): Not applicable
Explosion limits: Lower / Upper: Not applicable
Vapor pressure (mm Hg): 20 torr @ 22.5°C
Vapor density (Air = 1): Data not available
Relative density (Specific gravity): 2.284
Solubility(ies): 31.6 g/100 ml water @ 0°C

Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: 560°C (1040°F)
Viscosity: Data not available.
Molecular formula: $CuSO_4 \cdot 5H_2O$
Molecular weight: 249.68

Section 10 Stability & Reactivity

Chemical stability: Stable
Hazardous polymerization: Will not occur.
Conditions to avoid: Hygroscopic material. Stable when kept dry, under normal temperature and pressure. Avoid high temperatures, exposure to air and incompatible materials.

Incompatible materials: Reducing agents, acetylene or nitromethane, magnesium, strong bases, alkalines, phosphates, hydrazine, zirconium. Can corrode aluminum, steel and iron.

Hazardous decomposition products: Oxides of sulfur and copper fumes.

Section 11 Toxicological Information

Acute toxicity: Oral-rat LD50: 300 mg/kg [Copper sulfate anhydrous]
Skin corrosion/irritation: Data not available
Serious eye damage/irritation: Data not available
Respiratory or skin sensitization: Data not available
Germ cell mutagenicity: Data not available
Carcinogenity: Data not available
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity: Data not available
STOT-single exposure: Data not available
STOT-repeated exposure: Data not available
Aspiration hazard: Data not available
Potential health effects:
Inhalation: May cause irritation to the mucous membranes and upper respiratory tract.
Ingestion: Ingestion can cause irritation to the digestive tract and abdominal pain.
Skin: Contact with skin causes slight irritation. Excessive exposure may cause allergic dermatitis. May cause irritation or burns on wet skin.
Eyes: Can cause severe irritation and may result in irreversible eye damage.
Signs and symptoms of exposure: *Note to physician*: Probable mucosal damage may contradict the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed. Wilson's disease can be aggravated by excessive exposure. Symptoms include nausea, vomiting, gastrointestinal pain, diarrhea, dizziness, jaundice, and general debility.
Additional information: RTECS #: GL8900000

Section 12 Ecological Information

Toxicity to fish: Salmo gairdneri (fish, estuary, fresh water), LC50 = < 0.75-0.84 mg/L [Copper sulfate anhydrous]
Toxicity to daphnia and other aquatic invertebrates: No data available
Toxicity to algae: No data available
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
PBT and vPvB assessment: No data available
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information

UN/NA number: UN3077
Shipping name: Environmentally hazardous substances, solid, n.o.s., (Cupric sulfate)
Hazard class: 9
Packing group: III
Reportable Quantity: 10 lbs (4.54 kg)
Marine pollutant: Yes
Exceptions: Non regulated equal to or less than 4.539 Kg ; Reportable quantity equal to or more than 4.54 Kg
2012 ERG Guide # 171

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	WHMIS Classification
Cupric sulfate	Listed	10 lbs (4.54 kg)	Not listed	Not listed	Not listed	D2B

Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Revision Date: February 22, 2013 **Supercedes:** January 29, 2011

Fisher Scientific

Part of Thermo Fisher Scientific

SAFETY DATA SHEET

Creation Date 28-Jul-2014 **Revision Date** 28-Jul-2014 **Revision Number** 1

Product Name **Copper, Powder (Laboratory)**

Cat No. : **C434-500**

Synonyms None.

Recommended Use Laboratory chemicals.

Uses advised against No Information available

Details of the supplier of the safety data sheet

Company
Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number
CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

Classification
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable solids	Category 2
Skin Corrosion/irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Respiratory system.	

Label Elements

Signal Word
Warning

Hazard Statements
Flammable solid
Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation



Precautionary Statements
Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/equipment
Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
Skin
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
Fire
In case of fire: Use CO2, dry chemical, or foam for extinction
Storage
Store in a well-ventilated place. Keep container tightly closed
Store locked up
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
Very toxic to aquatic life with long lasting effects

Component	CAS-No	Weight %
Copper	7440-50-8	100

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.
Ingestion	Do not induce vomiting. Obtain medical attention.
Most important symptoms/effects	No information available.
Notes to Physician	Treat symptomatically

Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media	No information available
Flash Point	Not applicable
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical
Flammable. Dust can form an explosive mixture in air. Fine dust dispersed in air may ignite. Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products
Copper oxides
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
2	2	1	N/A

Personal Precautions	Use personal protective equipment. Remove all sources of ignition. Avoid dust formation. Avoid contact with skin, eyes and clothing.
Environmental Precautions	Should not be released into the environment. See Section 12 for additional ecological information.
Methods for Containment and Clean Up	Remove all sources of ignition. Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

Handling	Wear personal protective equipment. Ensure adequate ventilation. Use spark-proof tools and explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Flammables area.

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Copper	TWA: 0.2 mg/m³ TWA: 1 mg/m³	(Vacated) TWA: 0.1 mg/m³ TWA: 0.1 mg/m³ TWA: 1 mg/m³	IDLH: 100 mg/m³ TWA: 1 mg/m³ TWA: 0.1 mg/m³

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Copper	TWA: 0.2 mg/m³ TWA: 1 mg/m³	TWA: 0.2 mg/m³ TWA: 1 mg/m³ STEL: 2 mg/m³	TWA: 0.2 mg/m³ TWA: 1 mg/m³

Legend

***ACGIH** - American Conference of Governmental Industrial Hygienists*
***OSHA** - Occupational Safety and Health Administration*
***NIOSH IDLH:** The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health*

Engineering Measures	Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

Physical State	Powder Solid
Appearance	Red brown
Odor	Odorless
Odor Threshold	No information available
pH	No information available
Melting Point/Range	1083 °C / 1981.4 °F
Boiling Point/Range	2595 °C / 4703 °F
Flash Point	Not applicable
Evaporation Rate	No information available
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	1 mmHg @ 1628 °C
Vapor Density	No information available
Relative Density	8.92
Solubility	Insoluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Molecular Formula	Cu
Molecular Weight	63.54

Reactive Hazard	None known, based on information available
Stability	Moisture sensitive. Air sensitive.
Conditions to Avoid	Avoid dust formation. Incompatible products. Exposure to air. Exposure to moisture. Keep away from open flames, hot surfaces and sources of ignition.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Copper oxides
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

Acute Toxicity

Product Information	No acute toxicity information is available for this product
Component Information	
Toxicologically Synergistic Products	No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Irritating to eyes, respiratory system and skin

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Copper	7440-50-8	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure Respiratory system
STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects,both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

Ecotoxicity
Do not empty into drains.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Copper	0.0426-0.0535 mg/L EC50 72 h 0.031-0.054 mg/L EC50 96 h	Onchorhynchys mykiss: LC50=0.15 mg/L 96h Cuprinus carpio: LC50=0.8 mg/L 96h	Not listed	0.03 mg/L EC50 = 48 h

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available.

Mobility No information available.

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

DOT
- **UN-No** UN3089
- **Proper Shipping Name** METAL POWDERS, FLAMMABLE, N.O.S.
- **Proper technical name** (COPPER)
- **Hazard Class** 4.1
- **Packing Group** III

TDG
- **UN-No** UN3089
- **Proper Shipping Name** METAL POWDERS, FLAMMABLE, N.O.S.
- **Hazard Class** 4.1
- **Packing Group** III

IATA
- **UN-No** UN3089

Proper Shipping Name	METAL POWDERS, FLAMMABLE, N.O.S.
Hazard Class	4.1
Packing Group	III

IMDG/IMO

UN-No	UN3089
Proper Shipping Name	METAL POWDERS, FLAMMABLE, N.O.S.
Hazard Class	4.1
Packing Group	III

[redacted]

All of the components in the product are on the following Inventory lists: Australia X = listed China Canada Europe TSCA Korea Philippines

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Copper	X	X	-	231-159-6	-		X	-	X	X	X

Legend:
X - Listed
E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
P - Indicates a commenced PMN substance
R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).
Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Copper	7440-50-8	100	1.0

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Copper	-	-	X	X

Clean Air Act Not applicable

OSHA Occupational Safety and Health Administration
Not applicable

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Copper	5000 lb	-

California Proposition 65 This product does not contain any Proposition 65 chemicals

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Copper	X	X	X	X	X

U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant Y

U.S. Department of Homeland Security
This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Canada
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

WHMIS Hazard Class B4 Flammable solid
D2B Toxic materials



[redacted]

Prepared By Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date 28-Jul-2014
Revision Date 28-Jul-2014
Print Date 28-Jul-2014
Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Disclaimer
The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of SDS

SAFETY DATA SHEET

1. Product identification

TRADE NAME (AS LABELED):	**CRAFT SMART ACRYLICS**
PART NUMBER:	CS120 - CS198
SKU#:	231834-231839; 231922-231926; 231928-231931; 231934-231975; 231979-231981; 231986-232022; 232024-232033; 232044-232046; 232048-232051
UPC#:	-
PRODUCT USE:	Acrylic Paint
CHEMICAL NAME:	Mixture
CHEMICAL FAMILY:	Acrylic Paint
MANUFACTURER'S NAME:	DECOART, INC.
ADDRESS:	49 Cotton Ave Stanford, KY 40484
EMERGENCY PHONE:	(800) 424-9300 CHEMTREC
BUSINESS PHONE:	(606) 365-3193
FAX NUMBER:	(606) 365-9739
DATE OF PREPARATION:	October 5, 2015

2. Hazard identification

EMERGENCY OVERVIEW: Product Description: This product is a liquid with a mild odor. **Health Hazards:** This material is not expected to cause adverse health effects in normal applications and use. **Flammability Hazards:**This product is a non flammable liquid. **Reactivity Hazards:** Non reactive. **Environmental Hazards:** The environmental effects of this product are not known. This product is not expected to cause adverse environmental effects. **Emergency Considerations:** Emergency responders must wear the proper personal protective equipment (and have appropriate fire-suppression equipment) suitable for the situation to which they are responding.

EU LABELING AND CLASSIFICATION:
Classification of the substance or mixture according to Regulation (EC) No1272/2008
Index# - These substances are not classified in Annex I of Directive 67/548/EEC
GHS Classification: None
Components Contributing to Hazard:
-
Hazard Statement(s):
None
Precautionary Statement(s):
None
EU Hazard Classification per Directive 1999/45/EC:
-
Risk Phrase None
Safety Phrase None

HEALTH HAZARDS OR RISKS FROM EXPOSURE:
PRIMARY ROUTES(S) OF ENTRY: Eye Contact, Ingestion, and Skin Contact
ACUTE:
EYE HAZARDS: This product not expected to cause eye irritation if it enters the eyes.
SKIN HAZARDS: Not expected to cause irritation with normal handling.
INGESTION HAZARDS: Not expected to be a normal route of entry
INHALATION HAZARDS: No hazards expected.
CONDITIONS AGGRAVATED BY EXPOSURE: None expected. Maintain housekeeping and personal hygiene to minimize exposure.
CONDITIONS AGGRAVATED BY OVEREXPOSURE: None expected
CHRONIC:
None Known

3. Composition and information on ingredients

Hazardous Ingredients	CAS #	EINECS #	ICSC #	WT #	Hazard Symbol Risk Phrases
Water	7732-18-5	231-791-2	Not Listed	<48%	HAZARD CLASSIFICATION: NONE RISK PHRASES: NONE
Nepheline Syenite	37244-96-5	Not Listed in ESIS	Not Listed	<25%	None
Calcined Kaolin	66402-68-4	Not Listed	Not Listed	<25%	HAZARD CLASSIFICATION: NONE RISK PHRASES: NONE
Acrylate Polymer Solution	28205-96-1	Not Listed	Not Listed	<20%	HAZARD CLASSIFICATION: NONE RISK PHRASES: NONE
Ground Limestone	1317-65-3	215-279-6	Not Listed	<15%	HAZARD CLASSIFICATION: NONE RISK PHRASES: NONE
Non-Hazardous Colorants	Non-Hazardous Mixture	Not Listed	Not Listed	<10%	HAZARD CLASSIFICATION: NONE RISK PHRASES: NONE
Titanium Oxide	13463-67-7	236-675-5	0338	<5%	HAZARD CLASSIFICATION: NONE RISK PHRASES: NONE
Propylene Glycol	57-55-6	200-338-0	0321	<3%	HAZARD CLASSIFICATION: NONE RISK PHRASES: NONE
Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers					

NOTE:
ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2010 format. This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard JIS Z 7250: 2000. This material is classified as hazardous under OSHA regulations 29 CFR 1910.1200.

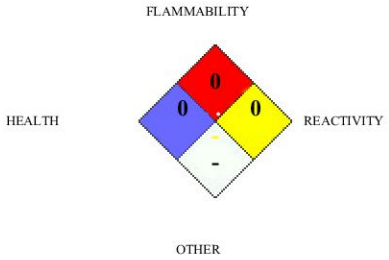
4. First-aid measures

Contaminated individuals of chemical exposure must be taken for medical attention if any adverse effect occurs. Rescuers should be taken for medical attention, if necessary. Take copy of label and SDS to health professional with contaminated individual.
SKIN EXPOSURE: Wash with soap and water. If discomfort occurs or persists, contact a physician immediately.
EYE EXPOSURE: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention if irritation persists.
INHALATION: If breathing becomes difficult remove contaminated individual to fresh air. If victim is not breathing provide artificial respiration. Seek medical attention immediately.
INGESTION: If this product is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow.
RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure.

5. Fire-fighting measures

FLASH POINT: Non-Flammable
AUTOIGNITION TEMPERATURE: Not Applicable
FLAMMABLE LIMITS (in air by volume, %): Lower NA; Upper NA
FIRE EXTINGUISHING MATERIALS: Use agent most appropriate to extinguishing surrounding fire.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None Known
Explosion Sensitivity to Mechanical Impact: Not Sensitive
Explosion Sensitivity to Static Discharge: Not Sensitive
SPECIAL FIRE-FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

NFPA RATING



Hazard Scale: **0** = Minimal **1** = Slight
2 = Moderate
3 = Serious **4** = Severe

6. Accidental release measures

SPILL AND LEAK RESPONSE: Absorb spill with inert material (e.g. vermiculite, sand, or earth), then place in suitable container for disposal. Clean up spills immediately, observing precautions.
US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.
DISPOSAL: Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations).

7. Handling and storage

WORK PRACTICES AND HYGIENE PRACTICES: Do not eat, drink, smoke, or apply cosmetics while handling this product.
STORAGE AND HANDLING PRACTICES: Store in a tightly sealed container. Store in a cool, dry, well ventilated area. Protect from physical damage.

8. Exposure controls - personal protection

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided below. Use local exhaust ventilation, and process enclosure if necessary, to control airborne dust. Ensure eyewash/safety shower stations are available near areas where this product is used.

EXPOSURE LIMITS/GUIDELINES

Component Name:	CAS #	ACGIH TLVs	OSHA-PELs	NIOSH-TLVs	Other
Water	7732-18-5	Not Listed	Not Listed	Not Listed	Not Listed
Nepheline Syenite	37244-96-5	Not Listed	Not Listed	Not Listed	Not Listed
Calcined Kaolin	66402-68-4	Not Listed	Not Listed	Not Listed	Not Listed
Acrylate Polymer Solution	28205-96-1	Not Listed	Not Listed	Not Listed	Not Listed
Ground Limestone	1317-65-3	Not Listed	Not Listed	Not Listed	Not Listed
Non-Hazardous Colorants	Non-Hazardous Mixture	Not Listed	Not Listed	Not Listed	Not Listed
Titanium Oxide	13463-67-7	Not Listed	Not Listed	Not Listed	Not Listed
Propylene Glycol	57-55-6	Not Listed	Not Listed	Not Listed	Not Listed

International exposure limits may be established for the components of this product. Please check with competent authority in each country for the most recent limits in place.
The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: Not required with normal use. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA standard Z94.4-93, the European Standard EN149, or EU member states.
EYE PROTECTION: Not normally required however, safety glasses are recommended as appropriate to prevent eye contact. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.
HAND PROTECTION: Not required under normal use. If desired, wear rubber gloves to prevent skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.
BODY PROTECTION: Not required under normal use. Wear appropriate clothing sufficient to prevent skin contact. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards.

9. Physical and chemical properties

VAPOR DENSITY: Not Available
SPECIFIC GRAVITY @ 20°C: Not Available
VAPOR PRESSURE: Not Available
FREEZING POINT: Not Availble
ODOR THRESHOLD: Mild
EVAPORATION RATE (n-BuAc=1): Not Available
SOLUBILITY IN WATER: Not Available
pH: Not Available
BOILING POINT: Not Available
APPEARANCE, ODOR and COLOR: This product is a liquid with a mild odor.

10. Stability and reactivity

STABILITY: Stable
DECOMPOSITION PRODUCTS: Carbon Monoxide and Carbon Dioxide
MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: None Known
HAZARDOUS POLYMERIZATION: Will Not Occur.
CONDITIONS TO AVOID: None Known

11. Toxicological information

TOXICITY DATA:
Routes of Entry: Eye contact, Ingestion, Skin Contact
No LD50/LC50 information found relating to normal routes of occupational exposures.
SUSPECTED CANCER AGENT: None of the ingredients are found on the following lists: FEDERAL OSHA Z LIST, NTP, CAL/OSHA, IARC and therefore is not considered to be, nor suspected to be a cancer-causing agent by these agencies.
IRRITANCY OF PRODUCT: This product not known to cause irritation.
SENSITIZATION TO THE PRODUCT: These products are not known to cause human skin or respiratory sensitization.
REPRODUCTIVE TOXICITY INFORMATION: Listed below is information concerning the effects of this product and its components on the human reproductive system.
Mutagenicity: The components of this product are not reported to produce mutagenic effects in humans.
Embryotoxicity: The components of this product are not reported to produce embryotoxic effects in humans.
Teratogenicity: The components of this product are not reported to produce teratogenicity effects in humans.
Reproductive Toxicity: The components of this product are not reported to produce reproductive effects in humans.

12. Ecological information

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.
ECOTOXICITY: Not available.
BOD5 and COD: Not available.
PRODUCTS OF BIODEGRADATION: Not available
TOXICITY OF THE PRODUCTS OF BIODEGRADATION: Not available
ENVIRONMENTAL STABILITY: Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways
BIOACCUMULATION/ACCUMULATION: These products have not been tested for bio-accumulation potential.

13. Disposal considerations

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

14. Transportation information

US DOT, IATA, IMO, ADR:
Domestic (Land, D.O.T.)
Proper Shipping Name: Non-Regulated Material

Hazard Class: Non Hazardous - Non Regulated
International (Water, I.M.O.)
Proper Shipping Name: Non-Regulated Material
Hazard Class: Non Hazardous - Non Regulated
International (Air, I.C.A.O.)
Proper Shipping Name: Non-regulated Material
Hazard Class: Non Hazardous - Non Regulated
U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS: This product is not classified as dangerous goods, per U.S. DOT regulations, under 49 CFR 172.101. Non-Regulated
TRANSPORT CANADA, TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: These products are not classified as Dangerous Goods, per regulations of Transport Canada.
INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA): These products are not classified as Dangerous Goods, by rules of IATA
INTERNATIONAL MARITIME ORGANIZATION (IMO) DESIGNATION: These products are not classified as Dangerous Goods by the International Maritime Organization.
EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR): These products are classified by the United Nations Economic Commission for Europe to be dangerous goods

15. Regulatory information

UNITED STATES REGULATIONS:
U.S. SARA REPORTING REQUIREMENTS: The components of this product are not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.
U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for any component of these products. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lb (4,540 kg) therefore applies, per 40 CFR 370.20.
U.S. CERCLA REPORTABLE QUANTITY (RQ): None
U.S. TSCA INVENTORY STATUS: The components of this product are listed in the TSCA Inventory.
CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): This product does not contain any component above the 0.1% level which is listed as a California Proposition 65 chemical.

CANADIAN REGULATIONS:
CANADIAN DSL/NDSL INVENTORY STATUS: The components of this product are not on the DSL Inventory.
CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: No component of this product is on the CEPA First Priorities Substance Lists.
CANADIAN WHMIS CLASSIFICATION and SYMBOLS: Not Classified

EUROPEAN ECONOMIC COMMUNITY INFORMATION:
Classification of the substance or mixture according to Regulation (EC) No1272/2008
Index# - These substances are not classified in Annex I of Directive 67/548/EEC
-
Risk Phrase None
Safety Phrase None

AUSTRALIAN INFORMATION FOR PRODUCT:
AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES (AICS) STATUS: The components of this product are listed on the AICS or are exempt.
STANDARD FOR THE UNIFORM SCHEDULING OF DRUGS AND POISONS: Not applicable.
JAPANESE INFORMATION FOR PRODUCT:
JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS: The components of this product are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.
INTERNATIONAL CHEMICAL INVENTORIES:
Listing of the components on individual country Chemical Inventories is as follows:
Asia-Pac: Listed or exempt
Australian Inventory of Chemical Substances (AICS): Listed or exempt
Korean Existing Chemicals List (ECL): Listed or exempt
Japanese Existing National Inventory of Chemical Substances (ENCS): Listed or exempt
Philippines Inventory if Chemicals and Chemical Substances (PICCS): Listed or exempt
Swiss Giftliste List of Toxic Substances: Listed or exempt
U.S. TSCA: Listed or exempt

16. Other information

PREPARED BY: DecoArt, Inc

DATE OF PRINTING: October 5, 2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

CRAFTSMART LIQUID GLOSS

Safety Data Sheet

1. Identification of Material and Supplier

GHS Product Identifier	**CRAFTSMART LIQUID GLOSS (PART A – RESIN)**
Product Code	SH985
Company Name	Modern Teaching Aids
Address	Level 1 122-126 Old Pittwater Road Brookvale NSW Australia
Telephone/Fax Number	Phone: 1800 251 497 Fax: 1800 151 492
Emergency Phone Number	24 hours
Recommended use of the chemical and restrictions on use	Craftsmart Liquid Gloss Part A Resin component used in conjunction with Craftsmart Liquid Gloss Part B Hardener to form an epoxy resin system that provides a tough, durable and high gloss coating.
Other Information	This SDS summarises to the best of our knowledge the health and safety hazard information of the product and how to safely handle and use the product in the workplace.

2. Hazards Identification

Classification of the substance or mixture
Hazardous according to the criteria of Safe Work Australia.

GHS Classification:	**Hazard Class**	**Hazard Category**
	Skin irritation	Category 2
	Serious eye irritation	Category 2A
	Skin sensitizer	Category 1
	Germ cell mutagenicity	Category 2
	Acute hazards to the aquatic environment	Category 2
	Chronic hazards to the aquatic environment	Category 2

Hazard pictogram(s)



Signal word Warning

Hazard statement(s):
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H341 Suspected of causing genetic defects.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statement(s):

Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P362 Take off contaminated clothing.
P39 Collect spillage.

Storage: P405 Store locked up.

Disposal: P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations.

Classification of material Xn - Harmful Xi - Irritant N - Dangerous for the environment

Risk phrases:
R36/38 Irritating to eyes and skin.
R43 May cause sensitisation by skin contact.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R68 Possible risk of irreversible effects.

Safety phrases:
S24/25 Avoid contact with skin and eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of water.
S36/37 Wear suitable protective clothing and gloves.
S46 If swallowed, seek medical advice immediately and show this container or label.
S57 Use appropriate container to avoid environmental contamination.
S60 This material and its container must be disposed of as hazardous waste.

Dangerous Goods information:
Not classified as Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

Signal word:
HAZARDOUS

3. Composition/Information on Ingredients

Identity of ingredients:

Chemical ingredients	CAS-No.	Proportion
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <=700)	25068-38-6	> 60%
Trimethylolpropane triacrylate	15625-89-5	10 - 30%
2,3-epoxypropyl o-tolyl ether	2210-79-9	< 10%

4. First-Aid Measures

Ingestion	Rinse out mouth. Do not drink. Seek medical advice from a specialist.
Skin	Rinse with running water and soap. Seek medical advice.
Eyes	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical advice.

Inhalation	Move to fresh air, consult doctor if complaint persists.
First Aid facilities	Eye wash and safety shower. Normal washroom facilities.
Medical attention and special treatment	Treat symptomatically.

5. Fire-Fighting Measures

Suitable extinguishing media	Water spray (fog), foam, dry chemical or carbon dioxide
Improper extinguishing agent	High pressure waterjet .
Decomposition products in case of fire	Thermal decomposition can lead to release of irritating gases and vapours. Carbon monoxide. Carbon dioxide. Oxides of nitrogen.
Special protective equipment for fire-fighters	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear .
Additional firefighting advice	In case of fire, keep containers cool with water spray. Collect contaminated firefighting water separately. It must not enter drains.

6. Accidental Release Measures

Personal precautions and emergency procedures Avoid contact with skin and eyes.
See advice in Section 8.

Environmental precautions: Do not empty into drains / surface water / ground water.

Clean-up methods: Absorb spill with inert material. Shovel material into appropriate container for disposal.
Dispose of contaminated material as waste according to Chapter 13.
Wash spillage site thoroughly with soap and water or detergent solution.

7. Handling and Storage

Precautions for safe handling Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation. Avoid contact with eyes, skin and clothing.
See advice in chapter 8.
For the Part A plus Part B adhesive mixture, follow curing schedule as recommended in product literature.

Conditions for safe storage Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

8. Exposure Controls / Personal Protection

National exposure standards:

None

Engineering controls:	Ensure good ventilation/suction at the workplace.
Eye protection:	Wear safety glasses with side shields.
Skin protection:	Wear long sleeved shirt and long trousers. The use of chemical resistant gloves such as Neoprene or Natural Rubber are recommended Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. If signs of wear and tear are noticed then the gloves should be replaced.
Respiratory protection:	If inhalation risk exists, wear a respirator or air supplied mask complying with the requirements of AS/NZS 1715 and AS/NZS 1716.

9. Physical and chemical properties

Appearance:	colourless clear
Odour:	Epoxy
Flash point:	> 130 °C (> 266 °F)
Density:	1.10 - 1.18 g/cm3
Solubility in water:	Insoluble

10. Stability and Reactivity

Stability	Stable under normal conditions of temperature and pressure.
Conditions to avoid	Avoid excessive heat and ignition sources. Avoid mixing resin (Part A) and curing agent (Part B) unless you plan to use immediately.
Incompatible materials	Acids. Amines. Strong oxidizing agents.
Hazardous decomposition products	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
Hazardous polymerization	Rapid polymerization may generate excessive heat and pressure. Polymerization may occur at elevated temperature or in the presence of incompatible materials.

11. Toxicological Information

Health Effects:

Ingestion	Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhea.

Skin	Irritating to skin.
Eyes	Causes serious eye irritation. Symptoms may include severe irritation, pain, tearing, blurred vision.
Inhalation	Inhalation of vapours or mists of the product may be irritating to the respiratory system.
Chronic effects	Toxicological studies of an ingredient in this product have shown that prolonged exposure to high vapour concentration or ingestion of high dose may cause birth defects and decreased fertility in laboratory animals.
Mutagenicity	Category 2 (Mutagen), This product contains an ingredient which has been associated with mutagenicity effects.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Reaction product: Bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <=700) 25068-38-6	LD50 LC50	2,000 mg/kg 2,000 mg/kg	oral dermal		rat rat	OECD Guideline 420 (Acute Oral Toxicity) OECD Guideline 402 (Acute Dermal Toxicity)
Trimethylolpropane triacrylate 15625-89-5	LD50 LD50	>5,000 mg/kg >2,000 mg/l	oral dermal		rat rat	
2,3-epoxypropyl o-tolyl ether 2210-79-9	LD50 LD50	2,000 mg/kg 2,000 mg/kg	oral dermal		rat rat	

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Reaction product: Bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <=700) 25068-38-6	moderately irritating	24 h	rabbit	Draize Test

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Reaction product: Bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <=700) 25068-38-6	Not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation/Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Reaction product: Bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <=700) 25068-38-6	sensitizing	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study/Route of	Metabolic activation/Exposure	Species	Method

		administration	time		
Reaction product: Bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <=700) 25068-38-6	Negative	Bacterial reverse mutation assay (e.g Ames test)	With and without		OECD Guideline 472 (Genetic Toxicology: Escherichia coli, Reverse Mutation Assay)

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time/frequency of treatment	Species	Method
Reaction product: Bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <=700) 25068-38-6	NOAEL=500 mg/kg	Oral: gavage	14 wdaily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

12. Ecological Information

General ecological information Do not empty into drains / surface water / ground water.

Ecotoxicity Toxic to aquatic life with long lasting effects.

Toxicity:

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	LC50	1.75 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	EC50	9.4 mg/l	Algae	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, Growth Inhibition Test)
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	NOEC	2.4 mg/l	Algae	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, Growth Inhibition Test)
Trimethylolpropane triacrylate 15625-89-5	LC50	1-2.2 mg/l	Fish	96 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
2,3-epoxypropyl o-tolyl ether 2210-79-9	LC50	7.5 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
2,3-epoxypropyl o-tolyl ether 2210-79-9	EC50	3.3 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin		aerobic	5%	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry

(number average molecular weight <= 700) 25068-38-6				Test)
Trimethylolpropane triacrylate 15625-89-5			>70%	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
Trimethylolpropane triacrylate 15625-89-5			>40%	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
2,3-epoxypropyl o-tolyl ether 2210-79-9		aerobic	11-17%	OECD 301 A - F

13. Disposal Considerations

Waste disposal of product Dispose of as hazardous waste in compliance with local and national regulations.

Disposal for uncleaned package Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

14. Transport Information

Road and Rail Transport:

Dangerous Goods information Not classified as Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

Marine transport IMDG:

UN no. 3082

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol-A Epichlorhydrin resin)

Class or division 9

Packaging group III

EmS F-A ,S-F

Seawater pollutant Marine pollutant

Air transport IATA:

UN no. 3082

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Bisphenol-A Epichlorhydrin resin)

Class or division: 9

Packaging group: III

Packaging instructions (passenger) 964

Packaging instructions (cargo) 964

Further information for transport: The transport classifications in this section apply generally to packed and bulk goods alike. For containers with a net volume of no more than 5 L for liquid substances or a net mass of no more than 5 kg for solid substances per individual or inner package, the exemptions SP 375 (ADR), 197 (IATA), 969 (IMDG) may be applied, which can result in a deviation from the transport classification for packed goods.

15. Regulatory Information

SUSDP Poisons Schedule 5

AICS All components are listed or are exempt from listing on the Australian Inventory of Chemical Substances (AICS).

16. Other Information

Date of preparation or last revision of SDS	30/8/16
Contact Person/Point	CSA Trading Pty Ltd Phone: +61 3 9895 4333 (International) Fax: +61 3 9899 4519 (International) Poisons Information Centre 13 11 26 (Australia) 0800 764 766 (New Zealand)

Abbreviations and acronyms:
ADGC: Australian Dangerous Goods Code
IMDG: International Maritime Code Dangerous Goods
IATA-DGR: International Air Transport Association

1. Identification of Material and Supplier

GHS Product Identifier	**CRAFTSMART LIQUID GLOSS (PART B – HARDENER)**
Product Code	SH985
Company Name	Modern Teaching Aids
Address	Level 1 122-126 Old Pittwater Road Bookvale NSW Australia
Telephone/Fax Number	Phone: 1800 251 497 Fax: 1800 151 492
Emergency Phone Number	24 hours
Recommended use of the chemical and restrictions on use	Craftsmart Liquid Gloss Part B Hardener component used in conjunction with Craftsmart Liquid Gloss Part A Resin to form an epoxy resin system that provides a tough, durable and high gloss coating.
Other Information	This SDS summarises to the best of our knowledge the health and safety hazard information of the product and how to safely handle and use the product in the workplace.

2. Hazards Identification

Classification of the substance or mixture
Hazardous according to the criteria of Safe Work Australia.

GHS Classification:

Hazard Class	Hazard Category	Route of Exposure
Acute toxicity	Category 4	Oral
Acute toxicity	Category 4	Inhalation
Skin corrision	Category 1B	
Serious eye damage/eye irritation	Category 1	
Skin sensitizer	Category 1	

Hazard pictogram:



Signal word: DANGER

Hazard Statement(s)
H302+H332 Harmful if swallowed or if inhaled.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.

Precautionary Statement(s):
Prevention:
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated

clothing. Rinse skin with water/shower.
P304+P340+P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTRE or physician.
P305+P351+P338+P315 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.

Storage: P405 Store locked up.

Disposal: P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations.

Dangerous Goods information:
Not classified as Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).

Signal word:
HAZARDOUS

3. Composition/Information on Ingredients

Type of preparation: Hardener

Identity of ingredients:

Chemical Ingredients	CAS-No.	Proportion
Benzyl alcohol	100-51-6	30-60%
3-aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2	10-30%
Non hazardous ingredients		30-60%

4. First-Aid Measures

Ingestion: Do not induce vomiting. Have victim rinse mouth thoroughly with water. Get immediate medical attention.

Skin: In case of contact, immediately remove contaminated clothing and flush skin with copious amounts of water. Get immediate medical attention.

Eyes: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get immediate medical attention.

Inhalation: Move to fresh air. Keep warm and in a quiet place. Seek medical advice.

First Aid facilities: Eye wash & safety shower. Normal washroom facilities.

Medical attention and special treatment: Treat symptomatically.

5. Fire-Fighting Measures

Suitable extinguishing media:	Carbon dioxide, foam, powder Fine water spray.
Improper extinguishing agent:	Water spray jet.
Combustion behaviour:	In case of fire toxic gases can be released.
Decomposition products in case of fire:	Thermal decomposition can lead to release of irritating gases and vapours. Carbon monoxide. Carbon dioxide. Oxides of nitrogen. Ammonia.
Special protective equipment for fire fighters:	Wear protective equipment. Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA).
Additional fire fighting advice:	In case of fire, keep containers cool with water spray. Collect contaminated firefighting water separately. It must not enter drains.
Hazchem code:	2X

6. Accidental Release Measures

Personal precautions:	Remove sources of ignition. Danger of slipping on spilled product. Ensure adequate ventilation. Avoid skin and eye contact. Wear impervious gloves and chemical splash goggles.
Environmental precautions:	Do not empty into drains/surface water/ground water.
Clean-up methods:	Collect spilled material with an inert absorbent such as sand or vermiculite. Place in properly labelled closed container. Dispose of contaminated material as waste according to Section 13.

7. Handling and Storage

Precautions for safe handling:	For the Part A plus Part B adhesive mixture, follow curing schedule as recommended in product literature. Empty containers retain product residue, so obey hazard warnings and handle empty containers as if they were full. Do not cut, grind, weld, or drill on or near this container. Avoid breathing mists or aerosols of this product. Avoid contact with eyes, skin and clothing.
Conditions for safe storage:	Store in sealed original container. Store in a cool, dry place. Ensure that storage and workrooms are adequately ventilated. Keep away from heat and direct sunlight. Store away from incompatible materials.

8. Exposure Controls / Personal Protection

National exposure standards:	None
Engineering controls:	Ensure good ventilation/suction at the workplace.
Eye protection:	For eye protection, use tightly fitted safety goggles and a face-shield.
Skin protection:	Use of protective coveralls and long sleeves is recommended. The use of nitrile-latex gloves is recommended. Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. If signs of wear and tear are noticed then the gloves should be replaced.
Respiratory protection:	If inhalation risk exists, wear a respirator or air supplied mask complying with the requirements of AS/NZS 1715 and AS/NZS 1716.

9. Physical and chemical properties

Appearance:	colourless clear
Odor:	Characteristic
Flash point:	> 110 °C (> 230 °F)
Density:	1.00 - 1.10 g/cm3
Solubility:	slightly soluble

10. Stability and Reactivity

Stability:	Stable under normal conditions of temperature and pressure.
Conditions to avoid:	Heat, flames, sparks and other sources of ignition. Danger of decomposition if exposed to heat. Avoid mixing resin (Part A) and curing agent (Part B) unless you plan to use immediately.
Incompatible materials:	Reaction with epoxy resins and/or isocyanates in large amounts or under uncontrolled conditions releases considerable heat and may release acrid fumes. Oxidizing agents. Acids.
Hazardous decomposition products:	Thermal decomposition can lead to release of irritating gases and vapours. Carbon monoxide. Carbon dioxide. Oxides of nitrogen. Ammonia.
Hazardous polymerization:	Reaction with some curing agents may produce an exothermic reaction which in large masses could cause runaway polymerization.

11. Toxicological Information

Health Effects:

Ingestion: Harmful if swallowed.
Irritation and corrosive action can occur in the mouth, stomach tissue and digestive tract if swallowed.

Skin: Corrosive to skin.
Symptoms may include redness, burning, drying, cracking and skin burns.
May cause skin sensitization.

Eyes: Causes serious eye damage.
Contact with the eyes may cause moderate to severe eye injury. Eye contact may result in corneal injury. Symptoms may include discomfort or pain, excessive blinking and tear production, with marked redness and swelling of the conjunctiva.

Inhalation: Harmful if inhaled.
Inhalation of vapours or mist can cause severe irritation, tissue and scarring of the respiratory tract.

Acute toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Benzyl alcohol 100-51-6	LD50 Acute toxicity estimate (ATE) LC50	1,620 mg/kg 4.17 mg/l >4.178 mg/l	oral inhalation inhalation	 4 h	rat rat	Expert judgement
3-aminomethyl-3,5,5-trimethylcyclohexylamine 2855-13-2	LD50 LC50	1,030 mg/kg >5.01 mg/l	oral inhalation	 4 h	rat rat	OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Benzyl alcohol 100-51-6	Not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation/Corrosion)

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Benzyl alcohol 100-51-6	Category II	24 h	rabbit	OECD Guideline 405 (Acute Eye Irritation/Corrosion)
3-aminomethyl-3,5,5-trimethylcyclohexylamine 2855-13-2	corrosive		rabbit	OECD Guideline 405 (Acute Eye Irritation/Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Benzyl alcohol 100-51-6	Not sensitizing	Guinea pig maximisation test	guinea pig	Magnusson and Kligman Method
3-aminomethyl-3,5,5-trimethylcyclohexylamine 2855-13-2	Sensitizing	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitization)

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study/Route of administration	Metabolic activation/Exposure time	Species	Method
Benzyl alcohol	Negative	Bacterial	With and without		

100-51-6		reverse mutation assay (e.g Ames test)			
3-aminomethyl-3,5,5-trimethylcyclohexylamine 2855-13-2	Negative	Bacterial reverse mutation assay (e.g Ames test)	With and without		EU Method B.13/14 (Mutagenicity)

Repeated dose toxicity:

Hazardous components CAS-No.	Result	Route of application	Exposure time/frequency of treatment	Species	Method
3-aminomethyl-3,5,5-trimethylcyclohexylamine 2855-13-2	LOAEL=<160 mg/kg	Oral: drinking water	13 weeks	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in rodents)
3-aminomethyl-3,5,5-trimethylcyclohexylamine 2855-13-2	NOAEL=<60 mg/kg	Oral: drinking water	13 weeks	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in rodents)

12. Ecological Information

General ecological information: Do not empty into drains/surface water/ground water.

Toxicity:

Hazardous components CAS-No.	Value Type	Value	Acute Toxicity Study	Exposure time	Species	Method
Benzyl alcohol 100-51-6	LC50	646 mg/l	Fish	48 h	Leuciscus idus	DIN 38412-15
Benzyl alcohol 100-51-6	EC50	360 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Benzyl alcohol 100-51-6	EC50	640 mg/l	Algae	96 h	Scenedesmus quadricauda	OECD Guideline 201 (Alga, Growth Inhibition Test)
Benzyl alcohol 100-51-6	EC10	658 mg/l	Bacteria	17 h		
3-aminomethyl-3,5,5-trimethylcyclohexylamine 2855-13-2	LC50	110 mg/l	Fish	96 h	Leuciscus idus	EU Method C.1 (Acute Toxicity for Fish)
3-aminomethyl-3,5,5-trimethylcyclohexylamine 2855-13-2	EC50	42 mg/l	Daphnia	24 h	Daphnia magna	
3-aminomethyl-3,5,5-trimethylcyclohexylamine 2855-13-2	NOEC	1.5 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	EU Method C.3 (Algal Inhibition Test)
3-aminomethyl-3,5,5-trimethylcyclohexylamine 2855-13-2	EC50	37 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	EU Method C.3 (Algal Inhibition Test)
3-aminomethyl-3,5,5-trimethylcyclohexylamine 2855-13-2	EC10	1,120 mg/l	Bacteria	18 h		

Persistence and degradability:

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Benzyl alcohol 100-51-6	readily biodegradable	aerobic	92-96%	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
3-aminomethyl-3,5,5-trimethylcyclohexylamine 2855-13-2		aerobic	8%	OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test)

Bioaccumulative potential/Mobility in soil:

Hazardous	LogKow	Bioconcentration	Exposure	Species	Temperature	Method

components CAS-No.		factor (BCF)	time			
Benzyl alcohol 100-51-6	1.08					

13. Disposal Considerations

Waste disposal of product: Dispose of as hazardous waste in compliance with local and national regulations.
Do not allow product to enter sewer or waterways.

Disposal for uncleaned package: Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

14. Transport Information

Road and Rail Transport:

Dangerous Goods information:	Classified as Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).
UN no.:	2289
Proper shipping name:	ISOPHORONEDIAMINE (solution)
Class or division:	8
Packaging group:	III
Hazchem code:	2X
Emergency information:	Refer to the Dangerous Goods - Initial Emergency Response Guide HB 76.

Marine transport IMDG:

UN no.:	2289
Proper shipping name:	ISOPHORONEDIAMINE (solution)
Class or division:	8
Packaging group:	III
EmS:	F-A ,S-B
Seawater pollutant:	-

Air transport IATA:

UN no.:	2289
Proper shipping name:	Isophoronediamine (solution)
Class or division:	8
Packaging group:	III
Packaging instructions (passenger)	852
Packaging instructions (cargo)	856

15. Regulatory Information

SUSDP Poisons Schedule: 5

16. Other Information

Date of preparation 22/9/16

or last revision of SDS
Contact Point

Poisons Information Centre
13 11 26 (Australia)
0800 764 766 (New Zealand)

Abbreviations and acronyms:
ADGC: Australian Dangerous Goods Code
IMDG: International Maritime Code Dangerous Goods
TWA – Time Weighted Average

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1. Identification of the Preparation and of The Company	
Product Name and/or code:	CRAFTY DAB ® POSTER PAINT
Effective Date:	15-Jul-15
Manufacturer:	CLARENCE J. VENNE, INC. 7900 N. RADCLIFFE ST. BLD 101A BRISTOL, PA 19007
Information Contact:	Gary Ward, 215-547-7110
Emergency Contact:	Gary Ward, 215-547-7110
Product Use:	ART MATERIAL - Consumer Product
2. Hazards Identification	
Information pertaining to particular dangers for man and environment.	This product has not been classified as dangerous according to OSHA Hazard Communication Standard (29 CFR 1910.1200)
Emergency Overview	
Non-Hazardous.	
Label Elements	Conforms to ASTM D-4236
Pictograms	No pictograms are required for the mixture.
Signal Word	No signal word is required.
Hazard Statement	This product is non-hazardous, thus no specific hazard warnings are required.
Precaution Statement	None know for this mixture.
Children's Statement	Not for children under 3 years.
Classification of the Product:	
NFPA	Health 0 Flammability 1 Reactivity 0
HMIS	Health 0 Flammability 1 Physical Hazard 0
Regulation (EC) No. 1272/2008	Not classified as dangerous for supply/use.
Directive 67/548/EEC & Directive 1999/45/EC	Not classified as dangerous for supply/use.
3.Composition/Information on Ingredients:	
Substances:	
Mixture of the following chemicals:	Proprietary Ingredients 100% Waterbased ink in marker (dabber).
Risk and Safety Phrases:	
Ingredients are marked according to CLP Regulation (CLP-Regulation (EC) No 1272/2008) and according to DSD (Dangerous Substances Directive (67/548/EEC)) and DPD (Dangerous Preparations Directive (1999/45/EC)) and no workplace-related occupational exposure limits are specified for any of the listed ingredients. These ingredients are regarded as trade secrets.	
4. First Aid Measures	
Inhalation	If affected, get fresh air.

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Skin Contact	Wash the affected area thoroughly with plenty of soap and water.
Eye Contact	Carefully flush for water for 15 minutes. If irritation occurs, contact a physician.
Ingestion	Drink water or milk to dilute. Do not induce vomiting. Contact a physician.
5. Firefighting Measures	
Extinguishing Media	Water, foam, carbon dioxide or dry chemical equipment.
Fire/Explosion Hazards	Slight fire hazard when exposed to heat and flame. Sealed containers may rupture. Glue film may burn if exposed to flame.
Flashpoint/Flammability	Not flammable.
6. Accidental Release Measures	
Environmental precautions	This product should not be released in to the environment.
Methods and Materials for Containment and Cleaning up	Contain spill. Recover as much as possible. Place into closed container and store in a safe location to await disposal. Wash the spill area with soap and water.
7. Handling and Storage	
Safe Handling	Use under ventilated conditions. Avoid eye and skin contact. For personal protection, we recommend that employees wash thoroughly after handling product. Always wash before eating, smoking or using toilet facilities. Keep container closed when not in use. Keep container upright to prevent leakage.
Storage	Keep the sample in a cool dry ventilated area. Keep away from fire and heating sources. Keep container closed.
8. Exposure Controls/Personal Protection	
Personal Protective Equipment	Wear safety goggles where spills or splashing may occur. Wear water resistant impervious gloves if handling bulk materials.
Exposure Limits	No data available for this mixture. Not likely to be airborne.
Respiratory and Ventilation	Wear approved NIOSH/MSHA respirator if exposure to mist or vapor exceed applicable PEL/TLV limits nuisance particulate. Use in accordance with respirator manufacturer's use limitations and OSHA STANDARD 1910-34. Local ventilation may be used. Not likely to be airborne.
Skin Protection	Wear impervious gloves if handling bulk amounts.
Eye Protection	Wear goggles where spills or splashing may occur.

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9. Physical and Chemical Properties	
Appearance	Viscous liquid
Physical State	Liquid (liquid)
Color	Various -Refer to section 16.
Odor	Light odor
Boiling Point	Not determined
Freezing Point	Not determined
State (pH)	Not determined
Specific Gravity	Not determined
Viscosity	1,000-1,200
Flashpoint	Not determined
Vapor Pressure	Not determined
Vapor Density	Not determined
Solubility in water	Miscible
10. Stability and Reactivity	
Reactivity:	Not expected to be reactive.
Chemical Stability	Product is stable under normal storage conditions.
Conditions to Avoid	Keep away from heat, sparks and flame.
Incompatible materials	None known for this mixture.
Hazardous Decomposition Products	No dangerous decomposition products known.
11. Toxicological Information	
Health Effects	*Studies have not been performed on this particular mixture. No irritation hazard likely under normal use.*
Oral	LD50 > 5,000 mg/kg (rats)
Inhalation	None available for this mixture.
Dermal	None available for this mixture.
Eye Effects	None available for this mixture.
Skin Effects	None available for this mixture.
Additional toxicological information:	When used and handled according to specifications, the product does not have any harmful effects according to the information provided.
12. Ecological Information	
Toxicity:	Not expected to be harmful to the environment.
Aquatic toxicity	No information available.
Persistence and degradability	No information available.
Bio accumulative potential	Not expected to bioaccumulate significantly.
Mobility in soil	No information available.
Additional ecological information	No information available.
13. Disposal Considerations	
Dispose of all waste material in accordance with all applicable federal, state and local regulations for the disposal of non hazardous biodegradable waste.	
14. Transport Information	
DOT Non-Bulk	This regulation does not apply to the non-bulk material.

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Shipping Name	Not applicable to this mixture.
Technical Shipping Name	Not applicable to this mixture.
Hazard Class	Not applicable to this mixture.
UN Number	Not applicable to this mixture.
Packing Group	Not applicable to this mixture.
IMDG	This regulation does not apply to the non-bulk material.
Shipping Name	Not applicable to this mixture.
Technical Shipping Name	Not applicable to this mixture.
Hazard Class	Not applicable to this mixture.
UN Number	Not applicable to this mixture.
Packing Group	Not applicable to this mixture.
EmS Number	Not applicable to this mixture.
Marine Pollutant	Not applicable to this mixture.
ICAO/IATA	This regulation does not apply to the non-bulk material.
Shipping Name	Not applicable to this mixture.
Technical Shipping Name	Not applicable to this mixture.
Hazard Class	Not applicable to this mixture.
UN Number	Not applicable to this mixture.
Packing Group	Not applicable to this mixture.
Marine Pollutant	Not applicable to this mixture.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the materials.

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture.

SARA	Not applicable to this mixture.
Section 355 (extremely hazardous substances)	Not applicable to this mixture.
Section 313 (Specific toxic chemical listing)	Not applicable to this mixture.
TSCA (Toxic Substance Control Act)	All ingredients are listed.
Proposition 65	No California proposition 65 warning is required based on the formulation and information provided as of July 15, 2015.
Chemicals known to cause cancer	None of the ingredients are listed as of July 15, 2015.
Chemicals known to cause reproductive toxicity for females	None of the ingredients are listed as of July 15, 2015.
Chemicals known to cause reproductive toxicity for males	None of the ingredients are listed as of July 15, 2015.
Chemicals known to cause developmental toxicity	None of the ingredients are listed as of July 15, 2015.

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Carcinogenicity categories	
EPA (Environmental Protection Agency)	Not applicable to this mixture.
TLV (Threshold Limit Value established by ACGIH)	Not applicable to this mixture.
MAK (German Maximum Workplace Concentration)	Not applicable to this mixture.
NOISH-Ca (National Institute for Occupational Safety & Health)	Not applicable to this mixture.
OSHA-Ca (Occupational Safety & Health Administration)	Not applicable to this mixture.

16. Other Information

Product Description

Color

Yellow
Pink
Blue
Green
Purple
Teal
Black
Brown
Red
Orange

Reason for Issue: GHS Format

Prepared by: Rudolph J. Jaeger, Ph.D., DABT, ERT (UK)
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SAFETY DATA SHEET

CRAFTY DAB ® POSTER PAINT

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Abbreviations and acronyms:

NFPA (SCALE 0-4) National Fire Protection Association (USA)

Health: 0	No unusual hazard.
Fire: 1	Combustible if heated.
Reactivity: 0	Stable: Not reactive when mixed with water.

HMIS (SCALE 0-4) Hazardous Materials Identification System (USA)

Health: 0	No significant risk to health.
Fire: 1	Slight Hazard: Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200° F (Class IIIB).
Reactivity: 0	Minimal Hazard: Materials which are normally stable even under fire conditions, and which will not react with water.

Safety Data Sheet

Material Name: CRAYOLA® ACRYLIC PAINT; PORTFOLIO SERIES™ **SDS ID: BNSSS187**

* * *Section 1 - PRODUCT AND COMPANY IDENTIFICATION* * *

Material Name: CRAYOLA® ACRYLIC PAINT; PORTFOLIO SERIES™

CRAYOLA LLC
1100 Church Lane

Easton, PA 18044
support@crayola.com

Phone: 1-800-272-9652

Health Emergency - Call local Poison Control Center
Transportation Emergency: 1-800-535-5053

Synonyms

PORTFOLIO SERIES ACRYLIC PAINT; VARNISH; BEAD GLAZE; SPARKLE PAINT; GLAMOUR DUST; GLITTER GLAZE; PRODUCT COLORS/CODES: 20-4016; 20-4032; 100-PEARLESCENT MIXING; 113-LIGHT RED; 115-DEEP RED; 127-BURNT SIENA; 128-BURNT UMBER; 186-VIOLET; 244-IVORY BLACK; 300-DEEP MAGENTA; 313-LIGHT GREEN; 316-PHTHALO BLUE; 317-PHTHALO GREEN; 335-RED OXIDE; 381-BRILLIANT BLUE PURPLE; 411-LIGHT YELLOW; 432-TITANIUM WHITE; 434-UNBLEACHED TITANIUM; 500-MEDIUM MAGENTA; 530-BRONZE YELLOW; 570-BRILLANT BLUE; 590-BRILLANT PURPLE; 599-MEDIUM GRAY; 660-BRIGHT AQUA GREEN; 720-BRILLANT ORANGE; 730-TURNER'S YELLOW; 830-BRILLANT YELLOW; BIG YELLOW BOX 78-100; 78-1080; 78-1141; 78-1330; 78-1506; 78-1507; 78-1512; 78-1555; 04-1106; 04-1109; 04-1500; 04-1908; 04-1200; 04-1202; 04-1506; 04-1509; 04-1520; 04-1301; 20-1997; 94-1200; 94-1201; 94-1203; 94-1350; 04-1360; 94-3200; 94-3202; 94-4200; 94-4202; 94-4222; VARNISH 23-2436; 23-3301; 23-3302; 23-3303; 23-4087

Product Use

Arts and Crafts

* * *Section 2 - HAZARDS IDENTIFICATION* * *

EMERGENCY OVERVIEW

Color: various colors
Physical Form: liquid
Odor: odorless

POTENTIAL HEALTH EFFECTS

Inhalation: none
Skin Contact: none
Eye Contact: none
Ingestion: none

* * *Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS* * *

CAS	Component	Percent	Symbol(s)	Risk Phrase(s)
Not Available	Product has been certified as non-toxic by the art and creative materials institute, inc. and conforms to astm D-4236 standard practice for labeling art materials for acute and chronic adverse health hazards.	100	---	---

* * *Section 4 - FIRST AID MEASURES* * *

Inhalation

It is unlikely that emergency treatment will be required. Remove from exposure. Get medical attention, if needed.

Skin

It is unlikely that emergency treatment will be required. If adverse effects occur, wash with soap or mild detergent and large amounts of water. Get medical attention, if needed.

Eyes

It is unlikely that emergency treatment will be required. Wash with large amounts of water or normal saline until no evidence of chemical remains (at least 15-20 minutes). Get medical attention immediately.

Ingestion

Contact local poison control center or physician immediately.

* * *Section 5 - FIRE FIGHTING MEASURES* * *

See Section 9 for Flammability Properties

NFPA Ratings: Health: 1 **Fire:** 1 **Reactivity:** 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Flammable Properties

Slight fire hazard.

Extinguishing Media

regular dry chemical, carbon dioxide, water, regular foam

Fire Fighting Measures

Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products.

* * *Section 6 - ACCIDENTAL RELEASE MEASURES* * *

Occupational spill/release

Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal.

* * *Section 7 - HANDLING AND STORAGE* * *

Storage Procedures

Store and handle in accordance with all current regulations and standards. See original container for storage recommendations. Keep separated from incompatible substances.

* * *Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION* * *

Component Exposure Limits

ACGIH and EU have not developed exposure limits for any of this product's components.

Ventilation

Based on available information, additional ventilation is not required.

PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face

Eye protection not required under normal conditions.

Protective Clothing

Protective clothing is not required under normal conditions.

Glove Recommendations

Protective gloves are not required under normal conditions.

Respiratory Protection

No respirator is required under normal conditions of use.

Under conditions of frequent use or heavy exposure, respiratory protection may be needed.

* * *Section 9 - PHYSICAL AND CHEMICAL PROPERTIES* * *

Physical State:	Liquid	**Appearance:**	Not available
Color:	various colors	**Physical Form:**	liquid
Odor:	odorless	**Odor Threshold:**	Not available
pH:	Not available	**Melting Point:**	Not available
Boiling Point:	Not available	**Flash Point:**	No data available
Evaporation Rate:	Not available	**Vapor Pressure:**	Not available
Vapor Density (air = 1):	Not available	**Density:**	Not available
Specific Gravity (water = 1):	Not available	**Water Solubility:**	Not available
Coeff. Water/Oil Dist:	Not available	**Viscosity:**	Not available
Volatility:	Not available		

* * *Section 10 - STABILITY AND REACTIVITY* * *

Chemical Stability

Stable at normal temperatures and pressure.

Conditions to Avoid

None reported.

Materials to Avoid

oxidizing materials

Decomposition Products

oxides of carbon

Possibility of Hazardous Reactions

Will not polymerize.

* * *Section 11 - TOXICOLOGICAL INFORMATION* * *

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and no selected endpoints have been identified.

RTECS Acute Toxicity (selected)

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, or DFG.

RTECS Irritation

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

* * *Section 12 - ECOLOGICAL INFORMATION* * *

Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's components.

* * *Section 13 - DISPOSAL CONSIDERATIONS* * *

Disposal Methods

Dispose in accordance with all applicable regulations.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

* * *Section 14 - TRANSPORT INFORMATION* * *

US DOT Information

Not regulated as a hazardous material.

TDG Information

Not regulated as dangerous goods.

ADR Information

Not regulated as dangerous goods.

RID Information

Not regulated as dangerous goods.

IATA Information

Not regulated as dangerous goods.

ICAO Information

Not regulated as dangerous goods.

IMDG Information

Not regulated as dangerous goods.

* * *Section 15 - REGULATORY INFORMATION* * *

Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA Section 311/312 (40 CFR 370 Subparts B and C)

Acute Health: No **Chronic Health:** No **Fire:** No **Pressure:** No **Reactive:** No

Component Analysis - State

None of this product's components are listed on the state lists from CA, MA, MN, NJ or PA.

Not regulated under California Proposition 65

Canada

This product has been classified in accordance with the criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

WHMIS Classification: Not a Controlled Product under Canada's Workplace Hazardous Material Information System.

Component Analysis - Inventory

No information is available.

* * *Section 16 - OTHER INFORMATION* * *

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

End of Sheet BNSSS187

Safety Data Sheet

Material Name: CRAYOLA® GLUE STICK **SDS ID: BNSSS229**

* * *Section 1 - PRODUCT AND COMPANY IDENTIFICATION* * *

Material Name: CRAYOLA® GLUE STICK

CRAYOLA LLC
1100 Church Lane
Easton, PA 18044
support@crayola.com

Phone: 1-800-272-9652

Health Emergency - Call local Poison Control Center
Transportation Emergency: 1-800-535-5053

Synonyms

CRAYOLA GLUE STICK; PRODUCT CODE(S): 04-1021; 04-1309; 04-1907; 04-2536; 04-5098; 56-1129; 56-1135; 56-1188; 56-1228; 66-1101; 66-1129; 78-1320-0-000; 78-1320-0-001; 78-1360-0-000; 78-1360-0-001; 78-2003-0-000; 80-6884; 81-1335; 81-8111; 94-4201; 99-1257; 99-1258; 99-1259

Product Use

Arts and Crafts

* * *Section 2 - HAZARDS IDENTIFICATION* * *

EMERGENCY OVERVIEW

Color: blue
Change in Color: changes color on exposure to air
Physical Form: solid
Odor: faint odor

POTENTIAL HEALTH EFFECTS

Inhalation: none
Skin Contact: none
Eye Contact: none
Ingestion: none

* * *Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS* * *

CAS	Component	Percent	Symbol(s)	Risk Phrase(s)
Not Available	Product has been certified as non-toxic by the art and creative materials institute, inc. and conforms to astm D-4236 standard practice for labeling art materials for acute and chronic adverse health hazards.	100	---	---

* * *Section 4 - FIRST AID MEASURES* * *

Inhalation

It is unlikely that emergency treatment will be required. Remove from exposure. Get medical attention, if needed.

Safety Data Sheet

Material Name: CRAYOLA® GLUE STICK **SDS ID: BNSSS229**

Skin

It is unlikely that emergency treatment will be required. If adverse effects occur, wash with soap or mild detergent and large amounts of water. Get medical attention, if needed.

Eyes

It is unlikely that emergency treatment will be required. Wash with large amounts of water or normal saline until no evidence of chemical remains (at least 15-20 minutes). Get medical attention immediately.

Ingestion

Contact local poison control center or physician immediately.

* * *Section 5 - FIRE FIGHTING MEASURES* * *

See Section 9 for Flammability Properties

NFPA Ratings: Health: 1 **Fire:** 1 **Reactivity:** 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Flammable Properties

Slight fire hazard.

Extinguishing Media

regular dry chemical, carbon dioxide, water, regular foam

Fire Fighting Measures

Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products.

Thermal Decomposition Products

Combustion: oxides of carbon, oxides of nitrogen

* * *Section 6 - ACCIDENTAL RELEASE MEASURES* * *

Occupational spill/release

Collect spilled material in appropriate container for disposal.

* * *Section 7 - HANDLING AND STORAGE* * *

Handling Procedures

Use methods to minimize dust.

Storage Procedures

Store and handle in accordance with all current regulations and standards. See original container for storage recommendations. Store with bases. Keep separated from incompatible substances.

* * *Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION* * *

Component Exposure Limits

ACGIH and EU have not developed exposure limits for any of this product's components.

Ventilation

Based on available information, additional ventilation is not required.

PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face

Eye protection not required under normal conditions.

Protective Clothing

Protective clothing is not required under normal conditions.

Safety Data Sheet

Material Name: CRAYOLA® GLUE STICK **SDS ID: BNSSS229**

Glove Recommendations

Protective gloves are not required under normal conditions.

Respiratory Protection

No respirator is required under normal conditions of use.
Under conditions of frequent use or heavy exposure, respiratory protection may be needed.

* * *Section 9 - PHYSICAL AND CHEMICAL PROPERTIES* * *

Physical State:	Solid	**Appearance:**	Not available
Change in color:	changes color on exposure to air	**Color:**	blue
Physical Form:	solid	**Odor:**	faint odor
Odor Threshold:	Not available	**pH:**	11.5 - 12.5
Melting Point:	Not available	**Boiling Point:**	100 °C
Vapor Pressure:	Not applicable	**Vapor Density (air = 1):**	Not applicable
Density:	Not available	**Specific Gravity (water = 1):**	Not available
Water Solubility:	Not available	**Coeff. Water/Oil Dist:**	Not available
Volatility:	63 - 64 %		

* * *Section 10 - STABILITY AND REACTIVITY* * *

Chemical Stability

Stable at normal temperatures and pressure.

Conditions to Avoid

None reported.

Materials to Avoid

oxidizing materials

Thermal Decomposition Products

Combustion: oxides of carbon, oxides of nitrogen

Possibility of Hazardous Reactions

Will not polymerize.

* * *Section 11 - TOXICOLOGICAL INFORMATION* * *

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and no selected endpoints have been identified.

RTECS Acute Toxicity (selected)

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, or DFG.

RTECS Irritation

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

Safety Data Sheet

Material Name: CRAYOLA® GLUE STICK **SDS ID: BNSSS229**

* * *Section 12 - ECOLOGICAL INFORMATION* * *

Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's components.

* * *Section 13 - DISPOSAL CONSIDERATIONS* * *

Disposal Methods

Dispose in accordance with all applicable regulations.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

* * *Section 14 - TRANSPORT INFORMATION* * *

US DOT Information

Not regulated as a hazardous material.

TDG Information

Not regulated as dangerous goods.

ADR Information

Not regulated as dangerous goods.

RID Information

Not regulated as dangerous goods.

IATA Information

Not regulated as dangerous goods.

ICAO Information

Not regulated as dangerous goods.

IMDG Information

Not regulated as dangerous goods.

* * *Section 15 - REGULATORY INFORMATION* * *

Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA Section 311/312 (40 CFR 370 Subparts B and C)

Acute Health: No **Chronic Health:** No **Fire:** No **Pressure:** No **Reactive:** No

Component Analysis - State

None of this product's components are listed on the state lists from CA, MA, MN, NJ or PA.

Not regulated under California Proposition 65

Canada

This product has been classified in accordance with the criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

WHMIS Classification: Not a Controlled Product under Canada's Workplace Hazardous Material Information System.

Safety Data Sheet

Material Name: CRAYOLA® GLUE STICK **SDS ID: BNSSS229**

Canadian WHMIS Ingredients Disclosure List

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List and no components were found on the list.

Component Analysis - Inventory

No information is available.

* * *Section 16 - OTHER INFORMATION* * *

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

End of Sheet BNSSS229

* * *Section 1 - PRODUCT AND COMPANY IDENTIFICATION* * *

Material Name: CRAYOLA® MODEL MAGIC; MORPHIX; FUSION

CRAYOLA LLC
1100 Church Lane

Easton, PA 18044
support@crayola.com

Phone: 1-800-272-9652

Health Emergency - Call local Poison Control Center
Transportation Emergency: 1-800-535-5053

Synonyms

CRAYOLA MODEL MAGIC; CRAYOLA MODEL MAGIC (CRAYOLA FLUFF STUFF); CRAYOLA NEON MODEL MAGIC; ART TUB; ART CASE; CRAYOLA MODEL MAGIC BUCKET; MODEL MAGIC PRESTO DOTS; FUSION; MORPHIX; PRODUCT COLORS/CODES: 03-1601; 03-4101; 03-4102; 03-4103; 03-4104; 03-4105; 03-4109; 03-4110; 03-4112; 03-4116; 03-4117; 03-4118; 04-1110; 04-1500; 04-1503; 04-1504; 04-1506; 04-1507; 04-1509; 04-1520; 04-1907; 04-1908; 04-1951; 04-2529;; 04-4106; 04-4107; 04-4108; 04-4115; 04-4401; 04-4600; 04-5358; 04-5692; 04-5719; 23-0017; 23-0025; 23-0219; 23-0220; 23-0792;; 23-2200; 23-2201; 23-2218; 23-2221; 23-2223; 23-2225; 23-2226; 23-2227; 23-2228; 23-2230; 23-2231; 23-2232; 23-2233; 23-2234; 23-2235; 23-2237; 23-2240; 23-2241; 23-2244; 23-2246; 23-2250, 23-2252, 23-2253; 23-2255; 23-2256; 23-2257; 23-2260; 23-2264; 23-2270; 23-2271; 23-2272; 23-2273; 23-2274; 23-2275; 23-2276; 23-2277; 23-2278; 23-2279; 23-2286; 23-2309; 23-2402; 23-2403; 23-2404; 23-2405; 23-2406; 23-2407; 23-2408; 23-2412; 23-2413; 23-2414; 23-2436; 23-2437; 23-2438; 23-2439; 23-2505; 23-2900; 23-3001; 23-3002; 23-3010; 23-3011; 23-3020; 23-3021; 23-3022; 23-3023; 23-3024; 23-3025; 23-3030; 23-3035; 23-3040; 23-3041; 23-3051; 23-3052; 23-3053; 23-3054; 23-3070; 23-3072; 23-3150; 23-3153; 23-3302; 23-3303; 23-3323; 23-3352; 23-4037; 23-4052; 23-4055; 23-4061; 23-4063; 23-4065; 23-4072; 23-4076; 23-4077; 23-4078; 23-4082; 23-4087; 23-6001; 23-6002; 23-6010; 23-6011; 23-6012; 23-6013; 23-6014; 23-6016; 23-6017; 23-6018; 23-3019; 23-6021; 23-6022; 23-6023; 23-6024; 23-6205; 23-6305; 23-6310; 57-2000; 57-4057; 57-4400; 57-4401; 57-4415; 57-4418; 57-4432; 57-4433; 57-4434; 57-4436; 57-4438; 57-4440; 57-4442; 57-4444; 57-4451; 57-4452; 57-4459; 57-4464; 57-4415; 57-4491, 57-4494, 57-4495, 57-4496, 57-4497; 57-4512; 57-4513; 57-6001; 94-4203

Product Use

Arts and Crafts

* * *Section 2 - HAZARDS IDENTIFICATION* * *

EMERGENCY OVERVIEW

Color: white, various colors
Physical Form: semi-solid gel
Odor: faint odor

POTENTIAL HEALTH EFFECTS

Inhalation: none
Skin Contact: none
Eye Contact: none
Ingestion: none

* * *Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS* * *

CAS	Component	Percent	Symbol(s)	Risk Phrase(s)
Not Available	Product has been certified as non-toxic by the art and creative materials institute, inc. and conforms to astm D-4236 standard practice for labeling art materials for acute and chronic adverse health hazards.	100	---	---

* * *Section 4 - FIRST AID MEASURES* * *

Inhalation

It is unlikely that emergency treatment will be required. Remove from exposure. Get medical attention, if needed.

Skin

It is unlikely that emergency treatment will be required. If adverse effects occur, wash with soap or mild detergent and large amounts of water. Get medical attention, if needed.

Eyes

It is unlikely that emergency treatment will be required. Wash with large amounts of water or normal saline until no evidence of chemical remains (at least 15-20 minutes). Get medical attention immediately.

Ingestion

Contact local poison control center or physician immediately.

* * *Section 5 - FIRE FIGHTING MEASURES* * *

See Section 9 for Flammability Properties

NFPA Ratings: Health: 1 **Fire:** 1 **Reactivity:** 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Flammable Properties

Slight fire hazard.

Extinguishing Media

regular dry chemical, carbon dioxide, water, regular foam

Fire Fighting Measures

Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products.

* * *Section 6 - ACCIDENTAL RELEASE MEASURES* * *

Occupational spill/release

Collect spilled material in appropriate container for disposal.

* * *Section 7 - HANDLING AND STORAGE* * *

Handling Procedures

Use methods to minimize dust.

Storage Procedures

Store and handle in accordance with all current regulations and standards. See original container for storage recommendations. Keep separated from incompatible substances.

* * *Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION* * *

Component Exposure Limits

ACGIH and EU have not developed exposure limits for any of this product's components.

Ventilation

Based on available information, additional ventilation is not required.

PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face

Eye protection not required under normal conditions.

Protective Clothing

Protective clothing is not required under normal conditions.

Glove Recommendations

Protective gloves are not required under normal conditions.

Respiratory Protection

No respirator is required under normal conditions of use.

* * *Section 9 - PHYSICAL AND CHEMICAL PROPERTIES* * *

Physical State:	Solid	**Appearance:**	Not available
Color:	white, various colors	**Physical Form:**	semi-solid gel
Odor:	faint odor	**Odor Threshold:**	Not available
pH:	5.5 - 7.5	**Melting Point:**	Not available
Boiling Point:	Not applicable	**Vapor Pressure:**	Not applicable
Vapor Density (air = 1):	Not applicable	**Density:**	Not available
Specific Gravity (water = 1):	0.4 - 1.9	**Water Solubility:**	Not available
Coeff. Water/Oil Dist:	Not available		

* * *Section 10 - STABILITY AND REACTIVITY* * *

Chemical Stability

Stable at normal temperatures and pressure.

Conditions to Avoid

None reported.

Materials to Avoid

oxidizing materials

Decomposition Products

oxides of carbon

Possibility of Hazardous Reactions

Will not polymerize.

* * *Section 11 - TOXICOLOGICAL INFORMATION* * *

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and no selected endpoints have been identified.

RTECS Acute Toxicity (selected)

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, or DFG.

RTECS Irritation

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

* * *Section 12 - ECOLOGICAL INFORMATION* * *

Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's components.

* * *Section 13 - DISPOSAL CONSIDERATIONS* * *

Disposal Methods

Dispose in accordance with all applicable regulations.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

* * *Section 14 - TRANSPORT INFORMATION* * *

US DOT Information

Not regulated as a hazardous material.

TDG Information

Not regulated as dangerous goods.

ADR Information

Not regulated as dangerous goods.

RID Information

Not regulated as dangerous goods.

IATA Information

Not regulated as dangerous goods.

ICAO Information

Not regulated as dangerous goods.

IMDG Information

Not regulated as dangerous goods.

* * *Section 15 - REGULATORY INFORMATION* * *

Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA Section 311/312 (40 CFR 370 Subparts B and C)

Acute Health: No **Chronic Health:** No **Fire:** No **Pressure:** No **Reactive:** No

Component Analysis - State

None of this product's components are listed on the state lists from CA, MA, MN, NJ or PA.

Not regulated under California Proposition 65

Canada

This product has been classified in accordance with the criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

WHMIS Classification: Not a Controlled Product under Canada's Workplace Hazardous Material Information System.

Component Analysis - Inventory

No information is available.

* * *Section 16 - OTHER INFORMATION* * *

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

End of Sheet BNSSS002

Safety Data Sheet

Material Name: CRAYOLA® PREMIER & ARTISTA II® TEMPERA PAINTS **SDS ID: BNSSS201**

* * *Section 1 - PRODUCT AND COMPANY IDENTIFICATION* * *

Material Name: CRAYOLA® PREMIER & ARTISTA II® TEMPERA PAINTS

Manufacturer Information

CRAYOLA LLC
1100 Church Lane
Easton, PA 18044
Mfg Contact: support@crayola.com

Phone: 1-800-272-9652

Emergency # 1-800-535-5053 or call local POISON CONTROL

Synonyms

CRAYOLA PREMIER & ARTISTA II TEMPERA PAINTS; PRODUCT COLORS/CODES: CRAYOLA PREMIER TEMPERA- 54-1106, 54-1116, 54-1206, 54-1208, 54-1208G, 54-1208S, 54-1216, 54-1216G, 54-1216S, 54-1232, 54-1264,; ARTISTA II TEMPERA- 54-3115, 54-3115F (STANDARD & FLUORESCENT), 54-3128, 54-3132, 54-3164; BLACK, BLUE, BROWN, GOLD (CRAYOLA), GREEN, MAGENTA, ORANGE, PEACH, RED, SILVER (CRAYOLA), TURQUOISE BLUE, VIOLET, WHITE, YELLOW, FLUORESCENT BLUE, FLUORESCENT GREEN, FLUORESCENT PINK, FLUORESCENT RED, FLUORESCENT ORANGE-YELLOW, FLUORESCENT YELLOW, FLUORESCENT MAGENTA, FLUORESCENT ORANGE, FLUORESCENT ORANGE-RED, FLUORESCENT CHARTREUSE; 44-1997-0-042 BLUE; 44-1997-0-044 GREEN; BIG YELLOW BOX FRIENDS ON THE FLY-BUTTERFLIES (78-1240-0-000); FRIENDS ON THE FLY-SEA CREATURES (78-1250-0-000); JUST IN CHIME (78-1280-0-000); 54-3108, 54-3181, 54-3182, 54-3183; 54-8516, 54-8216; CRAYOLA PREMIER BLUE AND GREEN TEMPERA

Product Use

Arts and Crafts

* * *Section 2 - HAZARDS IDENTIFICATION* * *

EMERGENCY OVERVIEW

Color: various colors
Physical Form: liquid
Odor: odorless

POTENTIAL HEALTH EFFECTS

Inhalation: none
Skin Contact: none
Eye Contact: none
Ingestion: none

* * *Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS* * *

CAS	Component	Percent	Symbol(s)	Risk Phrase(s)
Not Available	Product has been certified as non-toxic by the art and creative materials institute, inc. and conforms to astm D-4236 standard practice for labeling art materials for acute and chronic adverse health hazards.	100	---	---

* * *Section 4 - FIRST AID MEASURES* * *

Inhalation

It is unlikely that emergency treatment will be required. Remove from exposure. Get medical attention, if needed.

Skin

It is unlikely that emergency treatment will be required. If adverse effects occur, wash with soap or mild detergent and large amounts of water. Get medical attention, if needed.

Eyes

It is unlikely that emergency treatment will be required. Wash with large amounts of water or normal saline until no evidence of chemical remains (at least 15-20 minutes). Get medical attention immediately.

Ingestion

Contact local poison control center or physician immediately.

* * *Section 5 - FIRE FIGHTING MEASURES* * *

See Section 9 for Flammability Properties

NFPA Ratings: Health: 1 **Fire:** 1 **Reactivity:** 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Flammable Properties

Slight fire hazard.

Extinguishing Media

regular dry chemical, carbon dioxide, water, regular foam

Fire Fighting Measures

Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products.

* * *Section 6 - ACCIDENTAL RELEASE MEASURES* * *

Occupational spill/release

Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal.

* * *Section 7 - HANDLING AND STORAGE* * *

Storage Procedures

Store and handle in accordance with all current regulations and standards. See original container for storage recommendations. Keep separated from incompatible substances.

* * *Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION* * *

Component Exposure Limits

ACGIH and EU have not developed exposure limits for any of this product's components.

Ventilation

Based on available information, additional ventilation is not required.

PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face

Eye protection not required under normal conditions.

Protective Clothing

Protective clothing is not required under normal conditions.

Glove Recommendations

Protective gloves are not required under normal conditions.

Respiratory Protection

No respirator is required under normal conditions of use.

Under conditions of frequent use or heavy exposure, respiratory protection may be needed.

* * *Section 9 - PHYSICAL AND CHEMICAL PROPERTIES* * *

Physical State:	Liquid	**Appearance:**	Not available
Color:	various colors	**Physical Form:**	liquid
Odor:	odorless	**Odor Threshold:**	Not available
pH:	Not available	**Melting Point:**	Not available
Boiling Point:	Not available	**Flash Point:**	No data available
Evaporation Rate:	Not available	**Vapor Pressure:**	Not available
Vapor Density (air = 1):	Not available	**Density:**	Not available
Specific Gravity (water = 1):	Not available	**Water Solubility:**	Not available
Coeff. Water/Oil Dist:	Not available	**Viscosity:**	Not available
Volatility:	Not available		

* * *Section 10 - STABILITY AND REACTIVITY* * *

Chemical Stability

Stable at normal temperatures and pressure.

Conditions to Avoid

None reported.

Materials to Avoid

oxidizing materials

Decomposition Products

oxides of carbon

Possibility of Hazardous Reactions

Will not polymerize.

* * *Section 11 - TOXICOLOGICAL INFORMATION* * *

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and no selected endpoints have been identified.

RTECS Acute Toxicity (selected)

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, or DFG.

RTECS Irritation

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

* * *Section 12 - ECOLOGICAL INFORMATION* * *

Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's components.

* * *Section 13 - DISPOSAL CONSIDERATIONS* * *

Disposal Methods

Dispose in accordance with all applicable regulations.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

* * *Section 14 - TRANSPORT INFORMATION* * *

US DOT Information

No Classification assigned.

TDG Information

No Classification assigned.

ADR Information

No Classification assigned.

RID Information

No Classification assigned.

IATA Information

No Classification assigned.

ICAO Information

No Classification assigned.

IMDG Information

No Classification assigned.

* * *Section 15 - REGULATORY INFORMATION* * *

U.S. Federal Regulations

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA Section 311/312 (40 CFR 370 Subparts B and C)

Acute Health: No **Chronic Health:** No **Fire:** No **Pressure:** No **Reactive:** No

U.S. State Regulations

None of this product's components are listed on the state lists from CA, MA, MN, NJ, PA, or RI.

Not regulated under California Proposition 65

Canada

Component Analysis - Inventory

No information is available.

* * *Section 16 - OTHER INFORMATION* * *

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

End of Sheet BNSSS201

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name
CRAYOLA® WASHABLE PAINT

Synonyms
CRAYOLA WASHABLE PAINT; CRAYOLA WASHABLE KIDS' PAINT; CRAYOLA WASHABLE FINGER PAINT; CRAYOLA PAINT MAKER; PAINT & CANVAS KIT; PRODUCT CODE(S):): 03-3238; 03-3239; 03-7958; 04-0321; 04-0462; 04-0479; 04-0135; 04-0526; 04-0529; 04-0572; 04-0583; 04-1026; 04-1027; 04-1028; 04-1028; 04-1029; 04-1041; 04-1052; 04-1078; 04-1907; 04-1951; 04-2532; 04-2549; 04-4501; 04-5222; 04-5401; 04-5553; 04-5558; 04-8205; 04-5222; 04-5719; 04-5777; 04-6010; 04-6104; 04-6016; 04-6936; 44-1205-7; 44-2395; 54-0100; 54-0101; 54-0105; 54-0116; 54-0117; 54-0125; 54-0126; 54-0128; 54-0150; 54-0155; 54-0156; 54-0157; 04-0296; 54-1051; 54-1060; 54-1062; 54-1064; 54-1076; 54-1077; 54-1138; 54-1202; 54-1204; 54-1205; 54-1207; 54-1237; 54-1827; 54-1828; 54-1829; 54-1830; 54-1834; 54-1838; 54-1842; 54-1853; 54-208W; 54-2016; 54-2036; 54-2128; 54-2129; 54-2001; 54-2002; 54-2006; 54-2008; 54-2011; 54-2064; 54-2128; 54-2203; 54-2204; 54-2205; 54-2207; 54-2219; 54-2233; 54-2234; 54-2235; 54-2236; 54-2237; 54-2238; 54-2240; 54-2241; 54-2242; 54-2244; 54-2245; 54-2248; 54-2249; 54-2251; 54-2252; 54-2253; 54-2264; 54-2266; 54-2269; 54-2270; 54-2271; 54-2272; 54-2273; 54-2274; 54-2275; 54-2276; 54-2277; 54-2278; 54-2281; 54-2282; 54-2283; 54-2284; 54-2291; 54-2292; 54-2294; 54-2295; 54-2297; 54-2298; 54-2302; 54-2312; 54-2390; 53-2391; 54-2392; 52-2394; 52-2395; 54-2400; 54-2401; 54-2408; 54-2504; 54-2506; 54-2508; 54-2510; 54-2016; 54-2128; 54-2390; 54-2518; 54-2551; 54-2553; 54-4100; 54-5000; 54-6201; 74-7205; 54-7334; 54-7338; 54-7342; 54-7344; 54-7351; 54-7353; 54-7408; 54-9039; 54-9718; 54-9828; 55-0011; 55-0012; 55-1300; 55-0014; 55-0015; 55-0355; 55-1308; 55-1310; 55-1311; 55-1312; 55-1316; 55-1332; 55-1900; 55-1901; 57-0202; 57-0203; 57-0204; 58-6531; 71-1005; 71-1010; 74-7058; 74-7080; 74-7081; 74-7080; 74-7081; 74-7087; 74-7088; 74-7217; 74-7420; 74-7420; 81-1333; 81-1362; 81-1368; 81-1427; 81-1430; 81-1452; 81-1476; 81-1477; 81-1479; 81-8108; 82-0569

Product Description
Finished product.

Product Use
Arts and Crafts

Restrictions on Use
None known.

Details of the supplier of the safety data sheet
CRAYOLA LLC
1100 Church Lane
Easton, PA 18044
Phone: 1-800-272-9652
Emergency Phone #: Health Emergency - Call local POISON CONTROL
E-mail: support@crayola.com

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.
None needed according to classification criteria.

GHS Label Elements

Symbol(s)
None needed according to classification criteria.

Signal Word
None needed according to classification criteria

Hazard Statement(s)
None needed according to classification criteria.

Precautionary Statement(s)

Prevention
None needed according to classification criteria.

Response
None needed according to classification criteria.

Storage
None needed according to classification criteria.

Disposal
Dispose in accordance with all applicable federal, state/regional and local laws and regulations.

Other Hazards
None known.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
Not available	Product has been certified as nontoxic by the Art & Creative Materials Institute, Inc. and conforms to ASM D 4236 standard practice for labeling art materials for acute and chronic adverse health hazards.	100

Component Related Regulatory Information
The chemical identity and/or percentage of composition is being withheld as a trade secret.

Section 4 - FIRST AID MEASURES

Inhalation
It is unlikely that emergency treatment will be required. Remove from exposure. Get medical attention, if needed.

Skin
It is unlikely that emergency treatment will be required. If adverse effects occur, wash with soap or mild detergent and large amounts of water. Get medical attention, if needed.

Eyes
It is unlikely that emergency treatment will be required. Flush eyes with plenty of water for at least 15 minutes. If eye irritation persists, get medical advice/attention.

Ingestion
Call a poison control center or doctor immediately for treatment advice.

Most Important Symptoms/Effects
Acute
No information on significant adverse effects.
Delayed
No information on significant adverse effects.

Indication of any immediate medical attention and special treatment needed
Treat symptomatically and supportively.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media
Suitable Extinguishing Media
carbon dioxide, regular dry chemical, regular foam, Water

Unsuitable Extinguishing Media
None known.

Hazardous Combustion Products
Oxides of carbon

Advice for firefighters
Slight fire hazard.

Fire Fighting Measures
Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

Special Protective Equipment and Precautions for Firefighters
Wear protective clothing and equipment suitable for the surrounding fire.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures
Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Cleaning Up
Collect spilled material in appropriate container for disposal.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling
Wash thoroughly after handling.

Conditions for Safe Storage, Including any Incompatibilities
None needed according to classification criteria.
Store and handle in accordance with all current regulations and standards. See original container for storage recommendations. Keep separated from incompatible substances.

Incompatible Materials
oxidizing materials

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)
There are no biological limit values for any of this product's components.

Engineering Controls
Based on available information, additional ventilation is not required.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection
Eye protection not required under normal conditions.

Skin Protection
Protective clothing is not required under normal conditions.

Respiratory Protection
No respirator is required under normal conditions of use. Under conditions of frequent use or heavy exposure, respiratory protection may be needed.

Glove Recommendations
Protective gloves are not required under normal conditions.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	multiple colored liquid	**Physical State**	liquid
Odor	faint odor ,floral odor	**Color**	multiple
Odor Threshold	Not available	**pH**	7.1 - 9.4
Melting Point	Not available	**Boiling Point**	Not available
Boiling Point Range	Not available	**Freezing point**	Not available
Evaporation Rate	Not available	**Flammability (solid, gas)**	Not available
Autoignition Temperature	Not available	**Flash Point**	Not available
Lower Explosive Limit	Not available	**Decomposition temperature**	Not available
Upper Explosive Limit	Not available	**Vapor Pressure**	Not available
Vapor Density (air=1)	Not available	**Specific Gravity (water=1)**	Not available
Water Solubility	(Soluble)	**Partition coefficient: n-octanol/water**	Not available
Viscosity	40 - 80	**Kinematic viscosity**	Not available
Solubility (Other)	Not available	**Density**	8.3 - 10.2
Physical Form	Liquid	**Molecular Weight**	Not available

Section 10 - STABILITY AND REACTIVITY

Reactivity
No hazard expected.

Chemical Stability
Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions
Will not polymerize.

Conditions to Avoid
None reported.

Incompatible Materials
oxidizing materials

Hazardous decomposition products
Oxides of carbon

Thermal decomposition products

Oxides of carbon

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

No information on significant adverse effects.

Skin Contact

No information on significant adverse effects.

Eye Contact

No information on significant adverse effects.

Ingestion

No information on significant adverse effects.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and no selected endpoints have been identified.

Product Toxicity Data

Acute Toxicity Estimate

No data available.

Immediate Effects

None

Delayed Effects

None

Irritation/Corrosivity Data

None

Respiratory Sensitization

No information available for the product.

Dermal Sensitization

No information available for the product.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA.

Germ Cell Mutagenicity

No information available for the product.

Tumorigenic Data

No data available

Reproductive Toxicity

No information available for the product.

Specific Target Organ Toxicity - Single Exposure

No target organs identified.

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration hazard

no data available.

Medical Conditions Aggravated by Exposure

No data available.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

No information available for the product.

Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's components.

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility

No information available for the product.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose in accordance with all applicable federal, state/regional and local laws and regulations. Recycle if possible.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

Section 14 - TRANSPORT INFORMATION

US DOT Information:
UN/NA #: Not regulated

IATA Information:
UN#: Not regulated

ICAO Information:
UN#: Not regulated

IMDG Information:
UN#: Not regulated

International Bulk Chemical Code

This material does not contain any chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

None of this product's components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories

No hazard categories applicable.

U.S. State Regulations

None of this product's components are listed on the state lists from CA, MA, MN, NJ or PA.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

Not listed under California Proposition 65.

Component Analysis - Inventory

U.S. Inventory (TSCA)

All of the components of this product are listed on the TSCA Inventory.

Section 16 - OTHER INFORMATION

NFPA Ratings

Health: 1 Fire: 1 Instability: 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes

07/06/2020 - Update to Section(s) 1.

Revision date

Updated: 8/11/2020

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC – European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL) , KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; KR REACH CCA - Korea Registration and Evaluation of Chemical Substances Chemical Control Act; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX – Mexico; Ne- Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL – Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL- Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA – Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TH-TECI - Thailand - FDA Existing Chemicals Inventory (TECI); TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW – Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

Other Information

Disclaimer:

Supplier gives no warranty whatsoever, including the warranties of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser shall determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental,

consequential or any other damages arising out of the use or misuse of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights.

Safety Data Sheet

Material Name: CRAYOLA® WATER COLORS (PAN TYPE); ARTISTA II WATER COLORS (PAN TYPE)

SDS ID: BNSSS083

* * *Section 1 - PRODUCT AND COMPANY IDENTIFICATION* * *

Material Name: CRAYOLA® WATER COLORS (PAN TYPE); ARTISTA II WATER COLORS (PAN TYPE)

CRAYOLA LLC
1100 Church Lane

Easton, PA 18044
support@crayola.com

Phone: 1-800-272-9652

Health Emergency - Call local Poison Control Center
Transportation Emergency: 1-800-535-5053

Synonyms

CRAYOLA WATER COLORS (PAN TYPE); ARTISTA II WATER COLORS (PAN TYPE); PRODUCT CODE(S): WASHABLE WATERCOLORS; ARTISTA II; ULTIMATE ART KIT; FOR THE CURE; MASTER WORKS; COLOR CATCHERS; ZOOGLES; 04-1610; 04-1611; 04-1612; 04-1613; 04-1615; 04-1621; 04-1942; 04-1971; 04-2532; 04-2547; 04-2580; 04-2801; 04-2802; 04-2803; 04-5150; 04-5151; 04-5152; 04-5153; 04-5196; 04-5222; 04-5380; 04-5557; 04-5675; 04-5677; 04-5678; 04-5679; 04-5220; 04-5671; 04-5672; 04-5673; 04-5674; 04-8205; 04-8214; 04-8726; 04-5680; 04-5685; 04-5719; 04-5804; 04-8210; 04-8218; 04-8219; 04-8227; 07-4061; 07-4067; 10-5370; 53-0300; 53-0008; 53-0016; 53-0080; 53-0081; 53-007W; 53-0526; 53-1200; 53-2400; 53-2312; 53-0160; 53-0525; 53-0802; 53-120L; 53-1205; 53-1210; 53-1008; 53-1016; 53-1500; 53-1508; 53-1516; 53-0500; 53-0524; 53-0525; 53-0555; 53-1500; 53-8101; 54-0150; 54-1237; 55-4062; 80-6886; 81-1337; 81-6886; 94-3201

Product Use

Arts and Crafts

* * *Section 2 - HAZARDS IDENTIFICATION* * *

EMERGENCY OVERVIEW

Color: various colors
Physical Form: solid
Odor: odorless

POTENTIAL HEALTH EFFECTS

Inhalation: none
Skin Contact: none
Eye Contact: none
Ingestion: none

* * *Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS* * *

CAS	Component	Percent	Symbol(s)	Risk Phrase(s)

Safety Data Sheet

Material Name: CRAYOLA® WATER COLORS (PAN TYPE); ARTISTA II WATER COLORS (PAN TYPE)

SDS ID: BNSSS083

Not Available	Product has been certified as non-toxic by the art and creative materials institute, inc. and conforms to astm D-4236 standard practice for labeling art materials for acute and chronic adverse health hazards.	100	---	---

* * *Section 4 - FIRST AID MEASURES* * *

Inhalation

It is unlikely that emergency treatment will be required. Remove from exposure. Get medical attention, if needed.

Skin

It is unlikely that emergency treatment will be required. If adverse effects occur, wash with soap or mild detergent and large amounts of water. Get medical attention, if needed.

Eyes

It is unlikely that emergency treatment will be required. Wash with large amounts of water or normal saline until no evidence of chemical remains (at least 15-20 minutes). Get medical attention immediately.

Ingestion

Contact local poison control center or physician immediately.

* * *Section 5 - FIRE FIGHTING MEASURES* * *

See Section 9 for Flammability Properties

NFPA Ratings: Health: 1 **Fire:** 1 **Reactivity:** 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Flammable Properties

Slight fire hazard.

Extinguishing Media

regular dry chemical, carbon dioxide, water, regular foam

Fire Fighting Measures

Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products.

* * *Section 6 - ACCIDENTAL RELEASE MEASURES* * *

Occupational spill/release

Collect spilled material in appropriate container for disposal.

* * *Section 7 - HANDLING AND STORAGE* * *

Handling Procedures

Use methods to minimize dust.

Storage Procedures

Store and handle in accordance with all current regulations and standards. See original container for storage recommendations. Keep separated from incompatible substances.

* * *Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION* * *

Component Exposure Limits

ACGIH and EU have not developed exposure limits for any of this product's components.

Safety Data Sheet

Material Name: CRAYOLA® WATER COLORS (PAN TYPE); ARTISTA II WATER COLORS (PAN TYPE)

SDS ID: BNSSS083

Ventilation

Based on available information, additional ventilation is not required.

PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face

Eye protection not required under normal conditions.

Protective Clothing

Protective clothing is not required under normal conditions.

Glove Recommendations

Protective gloves are not required under normal conditions.

Respiratory Protection

No respirator is required under normal conditions of use.

Under conditions of frequent use or heavy exposure, respiratory protection may be needed.

* * *Section 9 - PHYSICAL AND CHEMICAL PROPERTIES* * *

Physical State:	Solid	**Appearance:**	Not available
Color:	various colors	**Physical Form:**	solid
Odor:	odorless	**Odor Threshold:**	Not available
Melting Point:	Not available	**Boiling Point:**	Not applicable
Vapor Pressure:	Not applicable	**Vapor Density (air = 1):**	Not applicable
Density:	Not available	**Specific Gravity (water = 1):**	Not available
Water Solubility:	Not available	**Coeff. Water/Oil Dist:**	Not available

* * *Section 10 - STABILITY AND REACTIVITY* * *

Chemical Stability

Stable at normal temperatures and pressure.

Conditions to Avoid

None reported.

Materials to Avoid

oxidizing materials

Decomposition Products

oxides of carbon

Possibility of Hazardous Reactions

Will not polymerize.

* * *Section 11 - TOXICOLOGICAL INFORMATION* * *

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and no selected endpoints have been identified.

RTECS Acute Toxicity (selected)

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, or DFG.

Safety Data Sheet

Material Name: CRAYOLA® WATER COLORS (PAN TYPE); ARTISTA II WATER COLORS (PAN TYPE)

SDS ID: BNSSS083

RTECS Irritation

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

* * *Section 12 - ECOLOGICAL INFORMATION* * *

Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's components.

* * *Section 13 - DISPOSAL CONSIDERATIONS* * *

Disposal Methods

Dispose in accordance with all applicable regulations.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

* * *Section 14 - TRANSPORT INFORMATION* * *

US DOT Information

Not regulated as a hazardous material.

TDG Information

Not regulated as dangerous goods.

ADR Information

Not regulated as dangerous goods.

RID Information

Not regulated as dangerous goods.

IATA Information

Not regulated as dangerous goods.

ICAO Information

Not regulated as dangerous goods.

IMDG Information

Not regulated as dangerous goods.

* * *Section 15 - REGULATORY INFORMATION* * *

Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA Section 311/312 (40 CFR 370 Subparts B and C)

Acute Health: No **Chronic Health:** No **Fire:** No **Pressure:** No **Reactive:** No

Component Analysis - State

None of this product's components are listed on the state lists from CA, MA, MN, NJ or PA.

Not regulated under California Proposition 65

Canada

This product has been classified in accordance with the criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

Safety Data Sheet

Material Name: CRAYOLA® WATER COLORS (PAN TYPE); ARTISTA II WATER COLORS (PAN TYPE)

SDS ID: BNSSS083

WHMIS Classification: Not a Controlled Product under Canada's Workplace Hazardous Material Information System.

Canadian WHMIS Ingredients Disclosure List

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List and no components were found on the list.

Component Analysis - Inventory

No information is available.

* * *Section 16 - OTHER INFORMATION* * *

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

End of Sheet BNSSS083

CHARLES LEONARD, INC.
Office & School Supplies • Arts & Crafts • Stationery Products
145 Kennedy Dr., Hauppauge, NY 11788 • www.charlesleonard.com

June 29, 2011

CREATIVE ARTS GLITTER

Dear Sirs:

Reference is made to your letter dated June 13, 2011 requesting a MSDS for our Creative Arts Glitter. Please be advised that this item is not considered a hazardous chemical. Therefore, we do not have an MSDS available.

The product has been tested under CPSI and has passed the lead and phthalates testing.

If you have any questions, please contact us at 631-273-6700.

Sincerely,

Steve Bloch
Vice President of Sales

SB/gp

Safety Data Sheet

Creme Cleanser

Section 1. Identification

Product Identifier	Creme Cleanser
Synonyms	N/A
Manufacturer Stock Numbers	N/A
Recommended use	Bowl Cleaner
Uses advised against	N/A
Manufacturer Contact	
Address	Pro Link 500 Chapman Street Canton , MA, 02021 USA

Phone	Emergency Phone	Fax
(800) 745-4657	(866) 303-6948	(781) 828-9551

Section 2. Hazards Identification

Classification	ACUTE TOXICITY - DERMAL - Category 5 ACUTE TOXICITY - ORAL - Category 5 EYE DAMAGE/IRRITATION - Category 2B SKIN CORROSION/IRRITATION - Category 3
Signal Word	Warning
Pictogram	
Hazard Statements	Causes eye irritation Causes mild skin irritation May be harmful if swallowed May be harmful in contact with skin
Precautionary Statements	
Response	If eye irritation persists: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/attention. If swallowed: Immediately call a poison center/doctor.
Prevention	Wash thoroughly after handling.

	Wear protective gloves/protective clothing/eye protection/face protection.
Storage	Store in a dry place. Store in a closed container.
Disposal	Dispose of contents/container in accordance with local/regional/national/internation regulations.

Ingredients of unknown toxicity	0%

Hazards not Otherwise Classified

No Data Available

Section 3. Ingredients

CAS	Ingredient Name	Weight %
1643-20-5	1-Dodecanamine, N,N-dimethyl-, N-oxide	15 %
1310-58-3	Potassium hydroxide	3 %
1317-65-3	Calcium carbonate	30 %
27176-87-0	Benzenesulfonic acid, dodecyl-	4 %

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-Aid Measures

Eye	Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.
Skin	Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	If swallowed, do NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Section 5. Fire Fighting Measures

Suitable Extinguishing Media	Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.
Unsuitable Extinguishing Media	N/A
Fire fighting instructions	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6. Accidental Release Measures

LARGE SPILLS	Stop leak at source and collect into suitable container, then treat as a small spill.
SMALL SPILLS	Absorb with an inert solid and scoop up for disposal, then rinse soiled area with water.

Section 7. Handling and Storage

Storage	Keep away from food and drinking water. Keep container closed to prevent drying out. Store in a cool place in original container and protect from sunlight.
Handling	Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Follow all SDS/label precautions even after container is emptied because they may retain product residues.

Section 8. Exposure Controls/Personal Protection

Occupational Exposure Limits	Ingredient Name	ACGIH TLV	OSHA PEL	STEL
	1-Dodecanamine, N,N-dimethyl-, N-oxide	N/A	N/A	N/A
	Potassium hydroxide	0	N/A	N/A
	Calcium carbonate	0	N/A	N/A
	Benzenesulfonic acid, dodecyl-	N/A	N/A	N/A

Personal Protective Equipment

Goggles, Gloves, Apron

202

Eyes: Safety glasses or goggles.

Skin: Nitrile or polyethylene gloves and aprons. Do not use cotton.

Ventilation: Positive down-draft exhaust ventilation should be provided to maintain vapor concentration below TLV.

Respiratory: Not available

Section 9. Physical and Chemical Properties

Physical State	Liquid
Color	White/Opaque/Thick
Odor	Mild
Odor Threshold	N/A
Solubility	Partially
Partition coefficient Water/n-octanol	N/A
VOC%	N/A
Viscosity	N/A
Specific Gravity	1.07
Density lbs/Gal	N/A
Pounds per Cubic Foot	N/A
Flash Point	N/A
FP Method	N/A
Ph	9.5-10.5
Melting Point	N/A
Boiling Point	212 Deg. F
Boiling Range	N/A
LEL	N/A
UEL	N/A
Evaporation Rate	N/A
Flammability	N/A
Decomposition Temperature	N/A
Auto-ignition Temperature	N/A
Vapor Pressure	N/A
Vapor Density	N/A

Section 10. Stability and Reactivity

Stability

Chemical Stability: Stable
Conditions to Avoid: Temperature Extremes
Incompatibility: Chlorine Bleach, Oxidizers, Acids
Hazardous Decomposition: Will not occur
Hazardous Polymerization: Will not occur

Section 11. Toxicological Information

Toxicological Information	Primary Route(s) of Entry: Skin contact /absorption and inhalation Signs and Symptoms of Overexposure: Gastrointestinal irritation (nausea, vomiting, diarrhea), irritation to nose, throat, and respiratory tract. Target Organ Effects: Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals and may aggravate pre-existing disorders or these organs in humans: chronic ingestion may cause kidney and liver lesions at high doses. IMMEDIATE HEALTH EFFECTS EYES: Exposure may cause noticeable pain, and severe irritation and transient corneal injury. SKIN: Causes chemical burns. Harmful contact may not cause immediate pain. INHALATION: Exposure to vapor or mist is possible. Short term inhalation is no likely to cause harmful effects: breathing large amounts may be harmful. Symptoms are more typically seen at air concentrations exceeding the recommended exposure limits. INGESTION: Harmful or fatal if swallowed. Causes chemical burns to the mouth, throat and stomach. REPRODUCTIVE / DEVELOPMENTAL INFORMATION No Data CARCINOGENIC INFORMATION: This material is not listed as a carcinogen by IARC, NTP, or OSHA LONG TERM EFFECTS: No Data

Section 12. Ecological Information

No Data Available

Section 13. Disposal

WASTE DISPOSAL METHOD:	For proper disposal of waste, refer to federal and state regulations.

Section 14. Transport Information

UN Number	N/A
UN Proper Shipping Name	N/A
DOT Classification	Non Hazardous
Packing Group	N/A

Section 15. Regulatory Information

Regulatory Statement	US Federal Regulations TSCA (Toxic Substances Control Act) Status TSCA (United States) The intentional ingredients of this product are listed. CERCLA RQ - 40 CFR 355 Appendix A:None SARA 302 Components 40 CFR Appendix A: None Section 311/312 Hazard Class 40 CFR 370.2 Immediate (X) Delayed (X) Fire ( ) Reactivity ( ) Sudden Release of Pressure ( ) SARA 313 Components - 40 CFR 372.65 * Listed in Section 2 as Diethylene Glycol Monomethyl Ether State and Local Regulations California Proposition 65: None California SCAQMD Rule 443.1 VOC's: > 100g/L North Carolina Administrative Code 2D.1104 and 2B.0610 None South Carolina Regulation 62.5 Standard Number 8: None

Section 16. Other Information

Revision Date	4/3/2015
DISCLAIMER:	The information contained herein is believed to be accurate and is offered in good faith. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Mixing this product with any other materials may change the characteristics such as flash point, flammability or health effects. Because product use is beyond our control, no warranty is given, expressed or implied.

Safety Data Sheet

SECTION 1 – IDENTIFICATION

Product Name: Critical Care

Issue Date: 1/9/2015

Date Revised: NA

Distributed By:

EnvirOx
1938 E. Fairchild St.
Danville, IL. 61832
800-281-9604

Recommended Uses: Ready To Use Hard Surface Disinfectant.

In Case of Emergency: Have the product container or label with you when calling a poison control center or doctor. You may contact CHEMTREC 1-800-424-9300 for emergency medical treatment information.

SECTION 2 – HAZARDS IDENTIFICATION

GHS Classification – Not Classified

Unclassified Hazards: May cause slight eye irritation

Precautionary Statements: Avoid direct skin and eye contact. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

HMIS Rating

Health	0
Flammability	0
Reactivity	0

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Components: **The specific chemical identities and exact percentages (concentrations) of composition have been withheld as a trade secret.**

None of the ingredients is considered hazardous according to the criteria of 29CFR1910.1200 and DOT Reg 49 CFR 172. Ingredients are listed for informational purposes to assist emergency medical response personnel.	Wt%
Water (CAS No. 7732-18-5)	> 95
Citric Acid (CAS No. 77-92-9)	< 5.0
Silver Ions	0.0030

SECTION 4 – FIRST-AID MEASURES

Eye Contact: Hold eyelids open and flush thoroughly with a steady, gentle stream of water for at least 15 minutes. If irritation persists consult a physician.

Skin Contact: Rinse with water. If irritation persists consult a physician.

Inhalation: If breathing is affected, remove victim to fresh air and consult a physician.

Ingestion: If irritation or discomfort occurs, call a physician. DO NOT INDUCE VOMITING.

SECTION 5 – FIRE-FIGHTING MEASURES

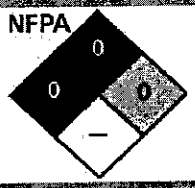
Flammability: Not flammable or combustible.

Flammable Limits: Not applicable.

Extinguishing Media: Not applicable.

Fire and Explosion Hazards: None.

NFPA



SECTION 6 – ACCIDENTAL RELEASE MEASURES

Response to Spills: SMALL SPILLS: Contain spill, flush to sanitary sewer, and rinse area with water. LARGE SPILLS: Dike or dam spill, pump to containers or soak up with inert absorbent, and prevent runoff to creeks and waterways. Personal Protective Equipment is not normally required. Avoid contact with eyes.

SECTION 7 – HANDLING AND STORAGE

Handling Precautions: Close container tightly when not in use.

Storage Precautions: Store in a cool, dry place. Do not contaminate food, feed, or drinking water. Keep from freezing. Keep out of direct sunlight.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

No special protection or precautions have been identified for using this product under directed consumer use conditions. The following recommendations are given for production facilities and for other conditions and situations where there is increased potential for accidental, large-scale or prolonged exposure.

Hygienic Practices: Avoid direct eye and skin contact. If irritation occurs, flush thoroughly with water. When product is applied to a floor surface, signage should be used to indicate slippery areas until they are dry.

Engineering Controls: Use general ventilation to minimize exposure to mist. Eyewash station is suggested.

Personal Protective Equipment: Not normally required. If contact is likely for prolonged or repeated contact, eye and hand protection is recommended.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance..... Colorless liquid
Odor..... Practically Odorless
pH..... 2
Specific Gravity (H_2O=1)..... Similar to water
Solubility..... Water soluble
VOC Content (% Wt.)..... 0.00% (0.000 lbs/gallon)

Boiling Point..... Not established
Freezing Point..... Not established
Evaporation Rate (Butyl Acetate=1)..... Not established
Vapor Density (Air=1)..... Not established
Vapor Pressure (mmHg)..... Not established

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability: Stable.
Incompatibility: Not applicable.
Hazardous Decomposition: None.
Polymerization: None.
Conditions to Avoid: Not applicable.

SECTION 11 – TOXICOLOGICAL INFORMATION

THIS PRODUCT DOES NOT CONTAIN ANY KNOWN OR ANTICIPATED CARCINOGENS ACCORDING TO THE CRITERIA OF THE NTP ANNUAL REPORT ON CARCINOGENS, OSHA 29 CFR 1910.1000, SUBPART Z, OR THE IARC MONOGRAPHS.

Acute Oral, Rat..... LD50>5000 mg/Kg
Acute Dermal, Rat..... LD50>5000 mg/Kg
Primary Eye Irritation..... Rabbit – Category IV
Primary Eye Irritation..... Rabbit – Slightly Irritating

Epidemiology..... None Known
Teratogenicity..... None Known
Neurotoxicity..... None Known
Dermal Sensitization..... Guinea Pigs – Not a contact sensitizer

Subchronic/Chronic Toxicity: Does not contain any recognized carcinogens, mutagens or reproductive toxicants.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: None.
Environmental Fate: Readily degraded. Ionic silver is degraded into inert elemental silver or insoluble silver complexes in the environment.

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of in accordance with local, state, and federal regulations.
RCRA Classification: Non-hazardous.

SECTION 14 – TRANSPORT INFORMATION

DOT Classification: Non-hazardous.
Exceptions: None.
Description: Not applicable.

SECTION 15 – REGULATORY INFORMATION

TSCA:	TSCA Inventory: All components are listed. TSCA Health and Safety Reporting List: None of the components are listed. TSCA Chemical Test Rules: None of the components are listed. TSCA Section 12b: None of the components are listed. TSCA Significant New Use Rule: None of the components has a SNUR.
CERCLA:	No RQ was assigned to silver compounds. See 50FR13456 (April 4, 1985).
ARA 302/304:	None of the components has a RQ or a TPQ.
SARA 311/312:	None of the components are reportable.
Clean Air:	None of the components are a Hazardous Air Pollutant, Class 1 Ozone Depletor, or Class 2 Ozone Depleter.
Clean Water Act:	None of the components are a Hazardous Substance, Priority Pollutant, or Toxic Pollutant.
OSHA:	None of the components are considered hazardous.
California Proposition 65:	None of the components are listed.

SECTION 16 – OTHER INFORMATION

ID: M5040
Issue Date (Rev): January 9, 2015

Revision Summary: NA

The information provided herein is based on data considered accurate. However, it is furnished WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. It is intended to assist in evaluating the suitability and proper use of the material and in the development of safety precautions and procedures. The user assumes all responsibility for personal injury or property damage caused by the misuse of this product.

SAFETY DATA SHEET
CRYSTAL CLEAR OPS

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Pacon Corporation
2525 N. Casaloma Drive
Appleton WI 54913
Telephone: 1-800-333-2545
Emergency Telephone: 1-800-222-1222

PRODUCT NAME: CRYSTAL CLEAR OPS
CHEMICAL NAME: ORIENTED POLYSTYRENE
CAS REGISTRY NO: N/A
DEPARTMENT OF TRANSPORATION HAZARD CLASS: NOT REGULATED
SHIPPING NAME: N/A

2. HAZARDS IDENTIDICATION

Potential Health Effects

Eye: Solid or dusts may cause irritation or corneal injury due to mechanical action.

Skin: Essentially non-irritating to skin. Skin absorption is unlikely due to physical properties.

Ingestion: No hazards anticipated from ingestion incidental to industrial exposure.

Inhalation: Vapors are unlikely due to physical properties. Dust may cause irritation to upper respiratory tract.

Systemic (Other Target Organ) Effects: No specific data available, however, repeated exposures are not anticipated to cause any significant adverse effects.

No Classification and labeling required (GHS-US)

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPOSITION	APPROX. WT. %	CAS REG. NO.
POLYSTYRENE	100%	009003-53-6

4. FIRST AID

Eye: Flush eyes with plenty of water; mechanical effects only.

Skin: No adverse effects anticipated by this route of exposure incidental to proper industrial handling.

Ingestion: No adverse effects anticipated by this route of exposure incidental to proper industrial handling.

Inhalation: No adverse effects anticipated by this route of exposure incidental to proper industrial handling.

5. FIRE FIGHTING MEASURES

Flammable Properties

FLASH POINT: Not applicable
METHOD USED: Not applicable
AUTOIGNITION TEMPERATURES: Not applicable

Flammability Limits

LFL: Not applicable
UFL: Not applicable

Hazardous Combustion Products: Under fire conditions polymers decompose. This smoke may contain polymer fragments of varying compositions in addition to unidentified toxic and/or irritating compounds.

Other Flammability Information: Dense smoke is emitted when burned without sufficient oxygen.

Extinguishing Media: Water, carbon dioxide, dry chemical.

Fire Fighting Instructions: Keep people away. Isolate fire area and deny unnecessary entry. Cool surroundings with water to localize fire zone. Soak thoroughly with water to cool and prevent reignition.

Protective Equipment for Fire Fighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, pants, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

6. ACCIDENTAL RELEASE MEASURES

Cleanup: Sweep up.

7. HANDLING AND STORAGE

Handling: Mechanical handling equipment can cause formation of dusts. Maintain good housekeeping. Layers of flammable dusts should not be permitted to form.

Storage: Recommend storing in a cool, dry place away from high temperatures, hot pipes, and direct sun.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Good general ventilation sufficient for most conditions.

Personal Protective Equipment

Eye/Face Protection: Use safety glasses.

Skin Protection: No precautions other than clean body-covering clothing should be needed.

Respiratory Protection: No respiratory protection should be needed.

Exposure Guideline(s): None established.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE:	Plastic film; clear.
ODOR:	Odorless.
VAPOR PRESSURE:	Not applicable
VAPOR DENSITY:	Not applicable
BOILING POINT:	Not applicable
SOLUBILITY IN WATER/MISCIBILITY:	Not applicable
SPECIFIC GRAVITY OR DENSITY:	1.05

10. STABILITY AND REACTIVITY

Chemical Stability:	Thermally stable at typical use temperatures.
Conditions to Avoid:	Avoid temperatures above 300C. Product can decompose at elevated temperatures. Avoid direct sunlight.
Incompatibility with Other Materials:	None known.
Hazardous Decomposition Products:	Processing may release fumes which may include polymer fragments and other decomposition products. Fumes can be irritating. At temperatures exceeding melt temperatures, polymer fragments can occur. Hazardous decomposition products depend upon temperature, air supply and the presence of other materials. Hazardous decomposition products may include and are not limited to: hydrocarbons, carbon monoxide, noxious fumes.
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

Skin:	Dermal LD50 has not been determined.
Ingestion:	Oral LD50 has not been determined.

12. ECOLOGICAL INFORMATION

Ecotoxicity:	Not expected to be acutely toxic.

13. DISPOSAL CONSIDERATION

Disposal:	DO NOT DUMP INTO ANY SEWERS, ON THE GROUND OR INTO ANY BODY OR WATER. All disposal methods must be in compliance with all Federal, State/provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

14. TRANSPORTATION INFORMATION

US DOT HAZARD CLASSIFICATION: Not Regulated.

15. REGULATORY INFORMATION

OSHA hazardous chemical(s)according to 29 CFR 1910.1200: None.
WHMIS (Canada) Status: Not a controlled product.
WHMIS (Canada) Ingredients Disclosure List: None.
Chemical(s) subject to the reporting requirements of Section 313 or Title III of SARA of 1986 and 4OCFR 372: None.
SARA Sections 311 and 312 hazard classification(s): N/A.
US Toxic Substances Control Act (TSCA): All Components of this product are listed or are excluded from listing on the TSCA Chemical Substance Inventory.
Material(s) known to the State of California to cause cancer: None
Material(s) known to the State of California to cause adverse reproductive effects: None
Massachusetts Substance List: None
New Jersey Workplace Hazardous Substance List: None
Pennsylvania Hazardous Substance List: None

16. OTHER INFORMATION

The above information and recommendations are believed accurate and reliable. Pacon Corporation makes no warranty of any kind, either express or implied, including merchantability and fitness. Users should consider these data only as a supplement to other information available from all sources, and should incorporate these into programs for the proper use and disposal of these materials and the safety and health of employees and customers.

CRYSTAL GROWING STUDENT LAB KIT #AP4846

FLINN SCIENTIFIC

With the Crystal Growing Chemistry Laboratory Kit, introduce the concepts of saturation and crystal structure. Students grow crystals of alum, chrome alum, cupric sulfate and more, each with its own distinct color and shape.

Chemicals Included:

Aluminum potassium sulfate, 200 g
Chromium potassium sulfate, 60 g
Copper(II) sulfate, 255 g
Nickel sulfate, 500 g
Sodium chlorate, 440 g

PLEASE LOOK UP CHEMICAL SDS'S INDIVIDUALLY

Section 1 Chemical Product and Company Information

ward's science
5100 West Henrietta Rd
PO Box 92912
Rochester, NY 14692-9012
Tel: (800) 962-2660

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300
For laboratory use only.
Not for drug, food or household use.

Product	**CRYSTAL VIOLET**
Synonyms	Gentian Violet / Basic Violet 3 / C.I. No. 42555

Section 2 Hazards Identification

Signal word: DANGER
Pictograms: GHS05 / GHS07 / GHS08 / GHS09
Target organs: Eyes



GHS Classification:
Acute toxicity, oral (Category 4)
Eye damage (Category 1)
Carcinogenicity (Category 2)
Aquatic acute (Category 1)
Aquatic chronic (Category 1)

GHS Label information: Hazard statement:
H302: Harmful if swallowed.
H318: Causes serious eye damage.
H351: Suspected of causing cancer.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statement:
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P312: IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor if you feel unwell.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER or doctor.
P391: Collect spillage.
P405: Store locked up.
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Crystal violet, biological stain and/or pH indicator	548-62-9	>96%	208-953-6

Section 4 First Aid Measures

INGESTION: HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: MAY CAUSE RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: MAY CAUSE EYE IRRITATION AND POSSIBLE DAMAGE. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Recover for reuse if not contaminated. Remove all sources of ignition. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 Exposure Controls / Personal Protection

Exposure Limits:

Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Crystal violet	Not established	Not established	Not established

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

Appearance: Solid. Green crystalline powder.
Odor: Musty odor.
Odor threshold: Data not available.
pH: Data not available.
Melting / Freezing point: Decomposes
Boiling point: Data not available
Flash point: Not flammable

Evaporation rate (= 1): Data not available
Flammability (solid/gas): Data not available.
Explosion limits: Lower / Upper: Data not available
Vapor pressure (mm Hg): Data not available
Vapor density (Air = 1): Data not available
Relative density (Specific gravity): Data not available
Solubility(ies): Soluble in water.

Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: 215°C (419°F)
Viscosity: Data not available.
Molecular formula: $C_{25}H_{30}ClN_3$
Molecular weight: 407.99

Section 10 Stability & Reactivity

Chemical stability: Stable
Hazardous polymerization: Will not occur.
Conditions to avoid: Excessive temperatures and heat. Protect from light.

Incompatible materials: Strong oxidizers, strong acids.

Hazardous decomposition products: Carbon oxides, nitrogen oxides, hydrogen chloride.

Section 11 Toxicological Information

Acute toxicity: Oral-rat LD50: 420 mg/kg
Skin corrosion/irritation: Data not available
Serious eye damage/irritation: Data not available
Respiratory or skin sensitization: Data not available
Germ cell mutagenicity: Data not available
Carcinogenity: Data not available
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity: Data not available
STOT-single exposure: Data not available
STOT-repeated exposure: Data not available
Aspiration hazard: Data not available
Potential health effects:
Inhalation: May cause respiratory tract irritation.
Ingestion: Harmful if swallowed. Causes gastrointestinal irritation with nausea, vomiting, and diarrhea.
Skin: May cause skin irritation.
Eyes: May cause eye irritation and possible damage. This product contains a cationic dye. Similar dyes have caused permanent injury to the cornea and conjunctiva in documented exposure cases with human or rabbit eyes.
Signs and symptoms of exposure: To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is not available. Exercise appropriate procedures to minimize potential hazards.
Additional information: RTECS #: BO9000000

Section 12 Ecological Information

Toxicity to fish: No data available
Toxicity to daphnia and other aquatic invertebrates: Daphnia magna (Water flea), EC50 = 0.24-5 mg/L/48 hours
Toxicity to algae: Pseudokirchneriella subcapitata, EC50 = 0.025-0.8 mg/L/72 hours
Persistence and degradability: No data available
Bioaccumulative potential: No data available
Mobility in soil: No data available
PBT and vPvB assessment: No data available
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number: Not applicable
Shipping name: Not Regulated
Hazard class: Not applicable
Packing group: Not applicable
Reportable Quantity: No
Marine pollutant: No
Exceptions: Not applicable
2012 ERG Guide # Not applicable

Section 15 Regulatory Information

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	WHMIS Classification
Crystal violet	Listed	Not listed	Not listed	Listed	Not listed	D1B ; D2B

Section 16 Additional Information

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

Revision Date: May 15, 2013 **Supercedes:** February 19, 2011

ThermoFisher
SCIENTIFIC

SAFETY DATA SHEET

Creation Date 13-Apr-2010 **Revision Date** 25-May-2017 **Revision Number** 3

1. Identification

Product Name Crystal Violet

Cat No. : AC212120000; AC212120250; AC212121000; AC212125000

Synonyms C.I. 42555; Gentian Violet; Basic Violet 3

Recommended Use Laboratory chemicals.
Uses advised against Not for food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

Company
Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Emergency Telephone Number
For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99
CHEMTREC Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

2. Hazard(s) identification

Classification
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral toxicity	Category 4
Serious Eye Damage/Eye Irritation	Category 1
Carcinogenicity	Category 2

Label Elements

Signal Word
Danger

Hazard Statements
Harmful if swallowed
Causes serious eye damage
Suspected of causing cancer



Precautionary Statements
Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Response
IF exposed or concerned: Get medical attention/advice
Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
Ingestion
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
Storage
Store locked up
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
Very toxic to aquatic life with long lasting effects
WARNING! This product contains a chemical known in the State of California to cause cancer.

3. Composition / Information on Ingredients

Component	CAS-No	Weight %
C.I. Basic violet 1	548-62-9	100
Michler's ketone	90-94-8	<0.2

4. First-aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

Ingestion Do not induce vomiting. Call a physician or Poison Control Center immediately.

Most important symptoms/effects Causes eye burns.
Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media No information available

Flash Point No information available
Method - No information available

Autoignition Temperature
Explosion Limits

Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical
Thermal decomposition can lead to release of irritating gases and vapors. Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous Combustion Products
Carbon monoxide (CO) Carbon dioxide (CO_2) Hydrogen chloride gas Nitrogen oxides (NOx)
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
2	1	1	N/A

6. Accidental release measures

Personal Precautions	Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes and clothing.
Environmental Precautions	Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.
Methods for Containment and Clean Up	Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

7. Handling and storage

Handling	Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Do not get in eyes, on skin, or on clothing. Do not breathe dust. Do not ingest.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight.

8. Exposure controls / personal protection

Exposure Guidelines	This product does not contain any hazardous materials with occupational exposure limitsestablished by the region specific regulatory bodies.
Engineering Measures	Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Solid
Appearance	Dark green
Odor	Odorless
Odor Threshold	No information available
pH	2.5-3.5 10 g/L aq.sol.(20°C)
Melting Point/Range	215 °C / 419 °F
Boiling Point/Range	No information available
Flash Point	No information available
Evaporation Rate	Not applicable
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	Not applicable
Specific Gravity	No information available
Solubility	Insoluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	
Decomposition Temperature	No information available
Viscosity	Not applicable
Molecular Formula	C25 H30 Cl N3
Molecular Weight	407.99

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under normal conditions. Light sensitive.

Conditions to Avoid Avoid dust formation. Incompatible products. Excess heat. Exposure to light.

Incompatible Materials Strong oxidizing agents, Strong acids, Strong reducing agents

Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO_2), Hydrogen chloride gas, Nitrogen oxides (NOx)

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
C.I. Basic violet 1	LD50 = 420 mg/kg (Rat)	Not listed	Not listed

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Severe eye irritant

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
C.I. Basic violet 1	548-62-9	Not listed	Not listed	Not listed	Not listed	Not listed
Michler's ketone	90-94-8	Group 2B	Reasonably Anticipated	Not listed	X	Not listed

IARC: (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2A - Probably Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans
NTP: (National Toxicity Program)
Known - Known Carcinogen
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

Mutagenic Effects No information available

Reproductive Effects Experiments have shown reproductive toxicity effects on laboratory animals.

Developmental Effects Developmental effects have occurred in experimental animals.

Teratogenicity Teratogenic effects have occurred in experimental animals.

STOT - single exposure None known
STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects,both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects Tumorigenic effects have been reported in experimental animals. See actual entry in RTECS for complete information.

12. Ecological Information

Ecotoxicity
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
C.I. Basic violet 1	EC50 = 0.025 - 0.8 mg/l, 72 h (Pseudokirchneriella subcapitata) OECD 201	Not listed	Not listed	EC50 = 0.24 - 5 mg/l, 48 h (Daphnia magna (Water flea)) OECD 202

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility . Will likely be mobile in the environment due to its water solubility.

Component	log Pow
C.I. Basic violet 1	0.51

13. Disposal Considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport Information

DOT

UN-No	UN3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Hazard Class	9
Packing Group	III

TDG

UN-No	UN3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Hazard Class	9
Packing Group	III

IATA

UN-No	UN3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.*
Hazard Class	9
Packing Group	III

IMDG/IMO

UN-No	UN3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Hazard Class	9
Packing Group	III

15. Regulatory Information

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
C.I. Basic violet 1	X	X	-	208-953-6	-		X	X	X	X	X
Michler's ketone	X	X	-	202-027-5	-		X	X	X	X	X

Legend:
X - Listed
E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
P - Indicates a commenced PMN substance
R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).
Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Michler's ketone	90-94-8	<0.2	0.1

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA Occupational Safety and Health Administration
Not applicable

CERCLA
Not applicable

California Proposition 65 This product contains the following proposition 65 chemicals

Component	CAS-No	California Prop. 65	Prop 65 NSRL	Category
Michler's ketone	90-94-8	Carcinogen	0.8 µg/day	Carcinogen

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Michler's ketone	X	X	X	X	-

U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security
This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Prepared By
Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date 13-Apr-2010
Revision Date 25-May-2017
Print Date 25-May-2017
Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

SAFETY DATA SHEET

CRYSTALTEX GLAZES (LEAD FREE – COPPER) – CTL SERIES (2)

Mfg. American Art & Clay Co.

SDS's for the following Glazes:

CTL 12 MARDI GRAS
CTL 20 ROYAL TURQUOISE
CTL 22 MILKY WAY
CTL 26 SEA MIST
CTL 34 GRANADA
CTL 35 NUTMEG

SAFETY DATA SHEET
CTL 12 MARDI GRAS

1. Identification

Product identifier

Product name CTL 12 MARDI GRAS

Product number CTL 12 MARDI GRAS

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier
American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

none present

3. Composition/information on ingredients

Mixtures

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

Inhalation Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.

CTL 12 MARDI GRAS

Ingestion Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.

Skin contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.

Eye contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

Environmental precautions

Environmental precautions Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material

Reference to other sections For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

CTL 12 MARDI GRAS

Control parameters

Ingredient comments	Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls	No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.
Eye/face protection	No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.
Hand protection	No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.
Hygiene measures	Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.
Respiratory protection	No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Various colors.
Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0
Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none
Oxidizing properties	none

CTL 12 MARDI GRAS

Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Skin corrosion/irritation

Skin sensitization

Skin sensitization	Based on available data the classification criteria are not met.
Eye contact	May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability	No data available.
Biodegradation	Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient	No information available.

Mobility in soil

Mobility	Semi-mobile.

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.

CTL 12 MARDI GRAS

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labeling requirements for larger volumes.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

International Regulations

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

zinc oxide

1-5%

Hydrated Aluminium Silicate

5-10%

silica

1-5%

CTL 12 MARDI GRAS

2-aminoethanol
<1%

Rhode Island "Right To Know" List

Hydrated Aluminium Silicate
5-10%

silica
1-5%

2-aminoethanol
<1%

Minnesota "Right To Know" List

zinc oxide
1-5%

Hydrated Aluminium Silicate
5-10%

silica
1-5%

2-aminoethanol
<1%

New Jersey "Right To Know" List

zinc oxide
1-5%

Hydrated Aluminium Silicate
5-10%

silica
1-5%

2-aminoethanol
<1%

Pennsylvania "Right To Know" List

zinc oxide
1-5%

Hydrated Aluminium Silicate
5-10%

silica
1-5%

2-aminoethanol
<1%

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

CTL 12 MARDI GRAS

US - TSCA 12(b) Export Notification

All the ingredients are listed or exempt.

16. Other information

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	7/28/2016
Revision	3
Supersedes date	7/27/2016
SDS No.	4983

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
CTL 20 ROYAL TURQUOISE

1. Identification

Product identifier

Product name CTL 20 ROYAL TURQUOISE

Product number CTL 20 ROYAL TURQUOISE

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier

American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H302

Environmental hazards Not Classified

Label elements

Pictogram



Signal word Warning

Hazard statements H302 Harmful if swallowed.

Precautionary statements

P264 Wash contaminated skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P301+P310 If swallowed: Immediately call a poison center/ doctor.
P330 Rinse mouth.
P501 Dispose of contents/ container in accordance with national regulations.

Supplemental label information WARNING: MAY BE HARMFUL IF SWALLOWED. Contains: COPPER. PRECAUTIONS: Keep in original container. Wash hands immediately after use. When using do not eat, drink or smoke. NOT FOR SPRAY APPLICATION. NOT FOR USE IN HEALTH CARE FACILITIES. KEEP OUT OF REACH OF CHILDREN. FIRST AID TREATMENT: If swallowed get prompt medical attention. For further information, contact a national poison control number; 800-222-1222.

Other hazards

none present

CTL 20 ROYAL TURQUOISE

3. Composition/information on ingredients

Mixtures

copper carb	**1-5%**
CAS number: 7492-68-4	

Classification
Skin Irrit. 2 - H315
Eye Irrit. 2A - H319
STOT SE 3 - H335

The full text for all hazard statements is displayed in Section 16.

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

Inhalation Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.

Ingestion Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.

Skin contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.

Eye contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

CTL 20 ROYAL TURQUOISE

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

Environmental precautions

Environmental precautions Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material

Reference to other sections For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

Control parameters

Ingredient comments Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.

Eye/face protection No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.

Hand protection No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.

Hygiene measures Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.

Respiratory protection No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance Colored liquid.

Color Various colors.

CTL 20 ROYAL TURQUOISE

Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0
Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none
Oxidizing properties	none
Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Acute toxicity - oral

ATE oral (mg/kg)	500.0

CTL 20 ROYAL TURQUOISE

Skin corrosion/irritation

Skin sensitization

Skin sensitization Based on available data the classification criteria are not met.

Eye contact May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability No data available.

Biodegradation Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient No information available.

Mobility in soil

Mobility Semi-mobile.

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

CTL 20 ROYAL TURQUOISE

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labeling requirements for larger volumes.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory Information

International Regulations

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

silica
5-10%

Hydrated Aluminium Silicate
5-10%

2-aminoethanol
<1%

Rhode Island "Right To Know" List

silica
5-10%

Hydrated Aluminium Silicate
5-10%

2-aminoethanol
<1%

Minnesota "Right To Know" List

silica
5-10%

Hydrated Aluminium Silicate
5-10%

2-aminoethanol
<1%

New Jersey "Right To Know" List

silica
5-10%

CTL 20 ROYAL TURQUOISE

Hydrated Aluminium Silicate
5-10%

2-aminoethanol
<1%

Pennsylvania "Right To Know" List

silica
5-10%

Hydrated Aluminium Silicate
5-10%

2-aminoethanol
<1%

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
All the ingredients are listed or exempt.

16. Other information

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	7/28/2016
Revision	4
Supersedes date	7/27/2016
SDS No.	4985
Hazard statements in full	H302 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
CTL 22 MILKY WAY

1. Identification

Product identifier

Product name CTL 22 MILKY WAY

Product number CTL 22 MILKY WAY

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier

American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

none present

3. Composition/information on ingredients

Mixtures

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

CTL 22 MILKY WAY

Inhalation Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.

Ingestion Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.

Skin contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.

Eye contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

Environmental precautions

Environmental precautions Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material

Reference to other sections For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

CTL 22 MILKY WAY

8. Exposure Controls/personal protection

Control parameters

Ingredient comments	Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls	No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.
Eye/face protection	No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.
Hand protection	No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.
Hygiene measures	Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.
Respiratory protection	No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Various colors.
Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0
Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none

CTL 22 MILKY WAY

Oxidizing properties	none
Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Skin corrosion/irritation

Skin sensitization

Skin sensitization	Based on available data the classification criteria are not met.
Eye contact	May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability	No data available.
Biodegradation	Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient	No information available.

Mobility in soil

Mobility	Semi-mobile.

Results of PBT and vPvB assessment

CTL 22 MILKY WAY

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labeling requirements for larger volumes.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

International Regulations

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

2-aminoethanol

<1%

Hydrated Aluminium Silicate

1-5%

CTL 22 MILKY WAY

Rhode Island "Right To Know" List

2-aminoethanol
<1%

Hydrated Aluminium Silicate
1-5%

Minnesota "Right To Know" List

2-aminoethanol
<1%

Hydrated Aluminium Silicate
1-5%

New Jersey "Right To Know" List

2-aminoethanol
<1%

Hydrated Aluminium Silicate
1-5%

Pennsylvania "Right To Know" List

2-aminoethanol
<1%

Hydrated Aluminium Silicate
1-5%

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
All the ingredients are listed or exempt.

16. Other information

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	7/28/2016
Revision	3
Supersedes date	7/27/2016
SDS No.	4986

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
CTL 26 SEA MIST

1. Identification

Product identifier

Product name CTL 26 SEA MIST

Product number CTL 26 SEA MIST

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier

American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H302

Environmental hazards Not Classified

Label elements

Pictogram



Signal word Warning

Hazard statements H302 Harmful if swallowed.

Precautionary statements

P264 Wash contaminated skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P301+P310 If swallowed: Immediately call a poison center/ doctor.
P330 Rinse mouth.
P501 Dispose of contents/ container in accordance with national regulations.

Supplemental label information

WARNING: MAY BE HARMFUL IF SWALLOWED. Contains: COPPER. PRECAUTIONS: Keep in original container. Wash hands immediately after use. When using do not eat, drink or smoke. NOT FOR SPRAY APPLICATION. NOT FOR USE IN HEALTH CARE FACILITIES. KEEP OUT OF REACH OF CHILDREN. FIRST AID TREATMENT: If swallowed get prompt medical attention. For further information, contact a national poison control number; 800-222-1222.

Other hazards

none present

CTL 26 SEA MIST

3. Composition/information on ingredients

Mixtures

copper carb	**1-5%**
CAS number: 7492-68-4	

Classification
Skin Irrit. 2 - H315
Eye Irrit. 2A - H319
STOT SE 3 - H335

The full text for all hazard statements is displayed in Section 16.

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

Inhalation Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.

Ingestion Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.

Skin contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.

Eye contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

CTL 26 SEA MIST

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

Environmental precautions

Environmental precautions Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material

Reference to other sections For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

Control parameters

Ingredient comments Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.

Eye/face protection No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.

Hand protection No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.

Hygiene measures Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.

Respiratory protection No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance Colored liquid.

Color Various colors.

CTL 26 SEA MIST

Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0
Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none
Oxidizing properties	none
Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Acute toxicity - oral

ATE oral (mg/kg)	500.0

CTL 26 SEA MIST

Skin corrosion/irritation

Skin sensitization

Skin sensitization Based on available data the classification criteria are not met.

Eye contact May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability No data available.

Biodegradation Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient No information available.

Mobility in soil

Mobility Semi-mobile.

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

CTL 26 SEA MIST

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labeling requirements for larger volumes.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

International Regulations

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

Hydrated Aluminium Silicate
1-5%

2-aminoethanol
<1%

silica
<1%

Rhode Island "Right To Know" List

Hydrated Aluminium Silicate
1-5%

2-aminoethanol
<1%

silica
<1%

Minnesota "Right To Know" List

Hydrated Aluminium Silicate
1-5%

2-aminoethanol
<1%

silica
<1%

New Jersey "Right To Know" List

Hydrated Aluminium Silicate
1-5%

CTL 26 SEA MIST

2-aminoethanol
<1%

silica
<1%

Pennsylvania "Right To Know" List

Hydrated Aluminium Silicate
1-5%

2-aminoethanol
<1%

silica
<1%

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
All the ingredients are listed or exempt.

16. Other information

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	7/28/2016
Revision	4
Supersedes date	7/27/2016
SDS No.	4988
Hazard statements in full	H302 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
CTL 34 GRANADA

1. Identification

Product identifier

Product name CTL 34 GRANADA

Product number CTL 34 GRANADA

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier

American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

none present

3. Composition/information on ingredients

Mixtures

copper carb **<1%**

CAS number: 7492-68-4

Classification
Skin Irrit. 2 - H315
Eye Irrit. 2A - H319
STOT SE 3 - H335

The full text for all hazard statements is displayed in Section 16.

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

CTL 34 GRANADA

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

Inhalation Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.

Ingestion Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.

Skin contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.

Eye contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

Environmental precautions

Environmental precautions Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material

Reference to other sections For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

CTL 34 GRANADA

Usage precautions	Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions	Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s)	The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

Control parameters

Ingredient comments	Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls	No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.
Eye/face protection	No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.
Hand protection	No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.
Hygiene measures	Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.
Respiratory protection	No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Various colors.
Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0

CTL 34 GRANADA

Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none
Oxidizing properties	none
Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Skin corrosion/irritation

Skin sensitization

Skin sensitization	Based on available data the classification criteria are not met.
Eye contact	May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability	No data available.

CTL 34 GRANADA

Biodegradation Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient No information available.

Mobility in soil

Mobility Semi-mobile.

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labeling requirements for larger volumes.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

International Regulations

US State Regulations

CTL 34 GRANADA

California Proposition 65 Carcinogens and Reproductive Toxins

Known to the State of California to cause developmental and reproductive toxicity.

lithium carb
1-5%

Massachusetts "Right To Know" List

Rutile
1-5%

silica
1-5%

Hydrated Aluminium Silicate
1-5%

lithium carb
1-5%

2-aminoethanol
<1%

Rhode Island "Right To Know" List

Rutile
1-5%

silica
1-5%

Hydrated Aluminium Silicate
1-5%

2-aminoethanol
<1%

Minnesota "Right To Know" List

Rutile
1-5%

silica
1-5%

Hydrated Aluminium Silicate
1-5%

2-aminoethanol
<1%

New Jersey "Right To Know" List

Rutile
1-5%

silica
1-5%

Hydrated Aluminium Silicate
1-5%

lithium carb
1-5%

CTL 34 GRANADA

2-aminoethanol
<1%

Pennsylvania "Right To Know" List

Rutile
1-5%

silica
1-5%

Hydrated Aluminium Silicate
1-5%

2-aminoethanol
<1%

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
All the ingredients are listed or exempt.

16. Other information

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	11/16/2016
Revision	4
Supersedes date	7/28/2016
SDS No.	4993
Hazard statements in full	H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
CTL 35 NUTMEG

1. Identification

Product identifier

Product name CTL 35 NUTMEG

Product number CTL 35 NUTMEG

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier

American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

none present

3. Composition/information on ingredients

Mixtures

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

CTL 35 NUTMEG

Inhalation Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.

Ingestion Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.

Skin contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.

Eye contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

Environmental precautions

Environmental precautions Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material

Reference to other sections For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

CTL 35 NUTMEG

8. Exposure Controls/personal protection

Control parameters

Ingredient comments	Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls	No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.
Eye/face protection	No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.
Hand protection	No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.
Hygiene measures	Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.
Respiratory protection	No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Various colors.
Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0
Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none

CTL 35 NUTMEG

Oxidizing properties	none
Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Skin corrosion/irritation

Skin sensitization

Skin sensitization	Based on available data the classification criteria are not met.
Eye contact	May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability	No data available.
Biodegradation	Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient	No information available.

Mobility in soil

Mobility	Semi-mobile.

Results of PBT and vPvB assessment

CTL 35 NUTMEG

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labeling requirements for larger volumes.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

International Regulations

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

Hydrous Aluminium Silicate

1-5%

2-aminoethanol

<1%

CTL 35 NUTMEG

red iron oxide
1-5%

Rhode Island "Right To Know" List

Hydrous Aluminium Silicate
1-5%

2-aminoethanol
<1%

red iron oxide
1-5%

Minnesota "Right To Know" List

Hydrous Aluminium Silicate
1-5%

2-aminoethanol
<1%

red iron oxide
1-5%

New Jersey "Right To Know" List

Hydrous Aluminium Silicate
1-5%

2-aminoethanol
<1%

red iron oxide
1-5%

manganese dioxide
<1%

Pennsylvania "Right To Know" List

Hydrous Aluminium Silicate
1-5%

2-aminoethanol
<1%

red iron oxide
1-5%

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
All the ingredients are listed or exempt.

16. Other information

CTL 35 NUTMEG

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	7/28/2016
Revision	3
Supersedes date	7/27/2016
SDS No.	4994

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET

CRYSTALTEX GLAZES (LEAD FREE) – CTL SERIES (1)

Mfg. American Art & Clay Co.

SDS's for the following Glazes:

CTL 1 JET MOSS
CTL 3 LAVA
CTL 9 SNAP DRAGON
CTL 10 PEPPERMINT ICE
CTL 11 SNOW FIRE
CTL 15 MOON SCAPE
CTL 31 BROWN EARTH
CTL 32 CHOCOLATE CHIP
CTL 36 GINGER BREAD
CTL 41 MELON
CTL 42 FANTASIA
CTL 43 AURORA
CTL 61 BUTTERCUP

SAFETY DATA SHEET
CTL 1 JET MOSS

1. Identification

Product identifier

Product name CTL 1 JET MOSS

Product number CTL 1 JET MOSS

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier

American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

none present

3. Composition/information on ingredients

Mixtures

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

CTL 1 JET MOSS

Inhalation	Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.
Ingestion	Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.
Skin contact	Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.
Eye contact	Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards	The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters	Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	For personal protection, see Section 8.

Environmental precautions

Environmental precautions	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up	Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material
Reference to other sections	For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions	Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions	Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s)	The identified uses for this product are detailed in Section 1.2.

CTL 1 JET MOSS

8. Exposure Controls/personal protection

Control parameters

Ingredient comments	Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls	No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.
Eye/face protection	No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.
Hand protection	No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.
Hygiene measures	Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.
Respiratory protection	No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Various colors.
Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0
Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none

CTL 1 JET MOSS

Oxidizing properties	none
Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Skin corrosion/irritation

Skin sensitization

Skin sensitization	Based on available data the classification criteria are not met.
Eye contact	May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability	No data available.
Biodegradation	Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient	No information available.

Mobility in soil

Mobility	Semi-mobile.

Results of PBT and vPvB assessment

CTL 1 JET MOSS

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labeling requirements for larger volumes.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

International Regulations

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances

2-aminoethanol

<1%

Massachusetts "Right To Know" List

CTL 1 JET MOSS

Hydrated Aluminium Silicate
1-5%

2-aminoethanol
<1%

silica
1-5%

Rhode Island "Right To Know" List

Hydrated Aluminium Silicate
1-5%

2-aminoethanol
<1%

silica
1-5%

Minnesota "Right To Know" List

Hydrated Aluminium Silicate
1-5%

2-aminoethanol
<1%

silica
1-5%

New Jersey "Right To Know" List

Hydrated Aluminium Silicate
1-5%

2-aminoethanol
<1%

silica
1-5%

Pennsylvania "Right To Know" List

Hydrated Aluminium Silicate

2-aminoethanol

silica

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
All the ingredients are listed or exempt.

16. Other information

CTL 1 JET MOSS

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	7/28/2016
Revision	3
Supersedes date	7/27/2016
SDS No.	4980

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
CTL 3 LAVA

1. Identification

Product identifier

Product name CTL 3 LAVA

Product number CTL 3 LAVA

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier

American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

none present

3. Composition/information on ingredients

Mixtures

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

Inhalation Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.

CTL 3 LAVA

Ingestion Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.

Skin contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.

Eye contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

Environmental precautions

Environmental precautions Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material

Reference to other sections For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

CTL 3 LAVA

Control parameters

Ingredient comments	Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls	No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.
Eye/face protection	No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.
Hand protection	No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.
Hygiene measures	Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.
Respiratory protection	No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Various colors.
Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0
Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none
Oxidizing properties	none

CTL 3 LAVA

Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Skin corrosion/irritation

Skin sensitization

Skin sensitization	Based on available data the classification criteria are not met.
Eye contact	May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability	No data available.
Biodegradation	Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient	No information available.

Mobility in soil

Mobility	Semi-mobile.

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.

CTL 3 LAVA

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labeling requirements for larger volumes.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

International Regulations

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

zinc oxide

1-5%

2-aminoethanol

<1%

aluminium oxide

1-5%

CTL 3 LAVA

Hydrated Aluminium Silicate
1-5%

Rhode Island "Right To Know" List

zinc oxide
1-5%

2-aminoethanol
<1%

aluminium oxide
1-5%

Hydrated Aluminium Silicate
1-5%

Minnesota "Right To Know" List

zinc oxide

2-aminoethanol

aluminium oxide

Hydrated Aluminium Silicate

New Jersey "Right To Know" List

zinc oxide
1-5%

2-aminoethanol
<1%

aluminium oxide
1-5%

Hydrated Aluminium Silicate
1-5%

Pennsylvania "Right To Know" List

zinc oxide
1-5%

2-aminoethanol
<1%

aluminium oxide
1-5%

Hydrated Aluminium Silicate
1-5%

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
All the ingredients are listed or exempt.

CTL 3 LAVA

16. Other information

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	7/28/2016
Revision	3
Supersedes date	7/27/2016
SDS No.	4989

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
CTL 9 SNAP DRAGON

1. Identification

Product identifier

Product name CTL 9 SNAP DRAGON

Product number CTL 9 SNAP DRAGON

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier

American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

none present

3. Composition/information on ingredients

Mixtures

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

Inhalation Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.

CTL 9 SNAP DRAGON

Ingestion Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.

Skin contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.

Eye contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

Environmental precautions

Environmental precautions Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material

Reference to other sections For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

CTL 9 SNAP DRAGON

Control parameters

Ingredient comments	Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls	No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.
Eye/face protection	No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.
Hand protection	No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.
Hygiene measures	Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.
Respiratory protection	No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Various colors.
Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0
Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none
Oxidizing properties	none

CTL 9 SNAP DRAGON

Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Skin corrosion/irritation

Skin sensitization

Skin sensitization	Based on available data the classification criteria are not met.
Eye contact	May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability	No data available.
Biodegradation	Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient	No information available.

Mobility in soil

Mobility	Semi-mobile.

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.

CTL 9 SNAP DRAGON

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labeling requirements for larger volumes.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

International Regulations

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

Hydrated Aluminium Silicate

5-10%

silica

1-5%

zinc oxide

1-5%

CTL 9 SNAP DRAGON

2-aminoethanol
<1%

Rhode Island "Right To Know" List

Hydrated Aluminium Silicate
5-10%

silica
1-5%

zinc oxide
1-5%

2-aminoethanol
<1%

Minnesota "Right To Know" List

Hydrated Aluminium Silicate
5-10%

silica
1-5%

zinc oxide
1-5%

2-aminoethanol
<1%

New Jersey "Right To Know" List

Hydrated Aluminium Silicate
5-10%

silica
1-5%

zinc oxide
1-5%

2-aminoethanol
<1%

Pennsylvania "Right To Know" List

Hydrated Aluminium Silicate
5-10%

silica
1-5%

zinc oxide
1-5%

2-aminoethanol
<1%

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

CTL 9 SNAP DRAGON

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
All the ingredients are listed or exempt.

16. Other information

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	7/28/2016
Revision	3
Supersedes date	7/27/2016
SDS No.	5015

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
CTL 10 PEPPERMINT ICE

1. Identification

Product identifier

Product name CTL 10 PEPPERMINT ICE

Product number CTL 10 PEPPERMINT ICE

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier

American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

none present

3. Composition/information on ingredients

Mixtures

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

Inhalation Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.

CTL 10 PEPPERMINT ICE

Ingestion Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.

Skin contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.

Eye contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

Environmental precautions

Environmental precautions Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material

Reference to other sections For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

CTL 10 PEPPERMINT ICE

Control parameters

Ingredient comments	Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls	No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.
Eye/face protection	No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.
Hand protection	No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.
Hygiene measures	Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.
Respiratory protection	No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Various colors.
Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0
Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none
Oxidizing properties	none

CTL 10 PEPPERMINT ICE

Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Skin corrosion/irritation

Skin sensitization

Skin sensitization	Based on available data the classification criteria are not met.
Eye contact	May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability	No data available.
Biodegradation	Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient	No information available.

Mobility in soil

Mobility	Semi-mobile.

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.

CTL 10 PEPPERMINT ICE

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labeling requirements for larger volumes.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

International Regulations

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

Hydrated Aluminium Silicate

5-10%

silica

1-5%

zinc oxide

1-5%

CTL 10 PEPPERMINT ICE

2-aminoethanol
<1%

Rhode Island "Right To Know" List

Hydrated Aluminium Silicate
5-10%

silica
1-5%

zinc oxide
1-5%

2-aminoethanol
<1%

Minnesota "Right To Know" List

Hydrated Aluminium Silicate
5-10%

silica
1-5%

zinc oxide
1-5%

2-aminoethanol
<1%

Pennsylvania "Right To Know" List

Hydrated Aluminium Silicate
5-10%

silica
1-5%

zinc oxide
1-5%

2-aminoethanol
<1%

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
All the ingredients are listed or exempt.

16. Other information

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	7/28/2016

CTL 10 PEPPERMINT ICE

Revision	3
Supersedes date	7/27/2016
SDS No.	4981

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
CTL 11 SNOW FIRE

1. Identification

Product identifier

Product name CTL 11 SNOW FIRE

Product number CTL 11 SNOW FIRE

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier

American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

none present

3. Composition/information on ingredients

Mixtures

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

Inhalation Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.

CTL 11 SNOW FIRE

Ingestion Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.

Skin contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.

Eye contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

Environmental precautions

Environmental precautions Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material

Reference to other sections For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

CTL 11 SNOW FIRE

Control parameters

Ingredient comments Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.

Eye/face protection No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.

Hand protection No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.

Hygiene measures Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.

Respiratory protection No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Various colors.
Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0
Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none
Oxidizing properties	none

CTL 11 SNOW FIRE

Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Skin corrosion/irritation

Skin sensitization

Skin sensitization	Based on available data the classification criteria are not met.
Eye contact	May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability	No data available.
Biodegradation	Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient	No information available.

Mobility in soil

Mobility	Semi-mobile.

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.

CTL 11 SNOW FIRE

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labeling requirements for larger volumes.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

International Regulations

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

zinc oxide

1-5%

Hydrated Aluminium Silicate

5-10%

silica

1-5%

CTL 11 SNOW FIRE

2-aminoethanol
<1%

Rhode Island "Right To Know" List

zinc oxide
1-5%

Hydrated Aluminium Silicate
5-10%

silica
1-5%

2-aminoethanol
<1%

Minnesota "Right To Know" List

zinc oxide
1-5%

Hydrated Aluminium Silicate
5-10%

silica
1-5%

2-aminoethanol
<1%

New Jersey "Right To Know" List

zinc oxide
1-5%

Hydrated Aluminium Silicate
5-10%

silica
1-5%

2-aminoethanol
<1%

Pennsylvania "Right To Know" List

zinc oxide
1-5%

Hydrated Aluminium Silicate
5-10%

silica
1-5%

2-aminoethanol
<1%

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

CTL 11 SNOW FIRE

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
All the ingredients are listed or exempt.

16. Other information

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	7/28/2016
Revision	3
Supersedes date	7/27/2016
SDS No.	4982

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
CTL 15 MOON SCAPE

1. Identification

Product identifier

Product name CTL 15 MOON SCAPE

Product number CTL 15 MOON SCAPE

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier

American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

none present

3. Composition/information on ingredients

Mixtures

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

CTL 15 MOON SCAPE

Inhalation	Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.
Ingestion	Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.
Skin contact	Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.
Eye contact	Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

Environmental precautions

Environmental precautions Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material

Reference to other sections For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

CTL 15 MOON SCAPE

8. Exposure Controls/personal protection

Control parameters

Ingredient comments	Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls	No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.
Eye/face protection	No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.
Hand protection	No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.
Hygiene measures	Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.
Respiratory protection	No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Various colors.
Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0
Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none

CTL 15 MOON SCAPE

Oxidizing properties	none
Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Skin corrosion/irritation

Skin sensitization

Skin sensitization	Based on available data the classification criteria are not met.
Eye contact	May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability	No data available.
Biodegradation	Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient	No information available.

Mobility in soil

Mobility	Semi-mobile.

Results of PBT and vPvB assessment

CTL 15 MOON SCAPE

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labeling requirements for larger volumes.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

International Regulations

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

2-aminoethanol

<1%

Hydrated Aluminium Silicate

1-5%

CTL 15 MOON SCAPE

Rhode Island "Right To Know" List

2-aminoethanol
<1%

Hydrated Aluminium Silicate
1-5%

Minnesota "Right To Know" List

2-aminoethanol
<1%

Hydrated Aluminium Silicate
1-5%

New Jersey "Right To Know" List

2-aminoethanol
<1%

Hydrated Aluminium Silicate
1-5%

Pennsylvania "Right To Know" List

2-aminoethanol
<1%

Hydrated Aluminium Silicate
1-5%

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
All the ingredients are listed or exempt.

16. Other information

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	7/28/2016
Revision	3
Supersedes date	7/27/2016
SDS No.	4984

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
CTL 31 BROWN EARTH

1. Identification

Product identifier

Product name CTL 31 BROWN EARTH

Product number CTL 31 BROWN EARTH

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier

American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

none present

3. Composition/information on ingredients

Mixtures

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

Inhalation Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.

CTL 31 BROWN EARTH

Ingestion Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.

Skin contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.

Eye contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

Environmental precautions

Environmental precautions Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material

Reference to other sections For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

CTL 31 BROWN EARTH

Control parameters

Ingredient comments	Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls	No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.
Eye/face protection	No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.
Hand protection	No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.
Hygiene measures	Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.
Respiratory protection	No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Various colors.
Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0
Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none
Oxidizing properties	none

CTL 31 BROWN EARTH

Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Skin corrosion/irritation

Skin sensitization

Skin sensitization	Based on available data the classification criteria are not met.
Eye contact	May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability	No data available.
Biodegradation	Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient	No information available.

Mobility in soil

Mobility	Semi-mobile.

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.

CTL 31 BROWN EARTH

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labeling requirements for larger volumes.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

International Regulations

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

zinc oxide

1-5%

red iron oxide

<1%

2-aminoethanol

<1%

CTL 31 BROWN EARTH

aluminium oxide
1-5%

Hydrated Aluminium Silicate
1-5%

Rhode Island "Right To Know" List

zinc oxide
1-5%

red iron oxide
<1%

2-aminoethanol
<1%

aluminium oxide
1-5%

Hydrated Aluminium Silicate
1-5%

Minnesota "Right To Know" List

zinc oxide
1-5%

red iron oxide
<1%

2-aminoethanol
<1%

aluminium oxide
1-5%

Hydrated Aluminium Silicate
1-5%

New Jersey "Right To Know" List

zinc oxide
1-5%

red iron oxide
<1%

2-aminoethanol
<1%

aluminium oxide
1-5%

Hydrated Aluminium Silicate
1-5%

Pennsylvania "Right To Know" List

zinc oxide
1-5%

red iron oxide
<1%

CTL 31 BROWN EARTH

2-aminoethanol
<1%

aluminium oxide
1-5%

Hydrated Aluminium Silicate
1-5%

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
All the ingredients are listed or exempt.

16. Other information

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	7/28/2016
Revision	3
Supersedes date	7/27/2016
SDS No.	4991

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
CTL 32 CHOCOLATE CHIP

1. Identification

Product identifier

Product name CTL 32 CHOCOLATE CHIP

Product number CTL 32 CHOCOLATE CHIP

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier

American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

none present

3. Composition/information on ingredients

Mixtures

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

Inhalation Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.

CTL 32 CHOCOLATE CHIP

Ingestion Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.

Skin contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.

Eye contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

Environmental precautions

Environmental precautions Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material

Reference to other sections For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

CTL 32 CHOCOLATE CHIP

Control parameters

Ingredient comments	Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls	No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.
Eye/face protection	No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.
Hand protection	No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.
Hygiene measures	Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.
Respiratory protection	No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Various colors.
Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0
Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none
Oxidizing properties	none

CTL 32 CHOCOLATE CHIP

Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Skin corrosion/irritation

Skin sensitization

Skin sensitization	Based on available data the classification criteria are not met.
Eye contact	May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability	No data available.
Biodegradation	Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient	No information available.

Mobility in soil

Mobility	Semi-mobile.

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.

CTL 32 CHOCOLATE CHIP

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labeling requirements for larger volumes.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory Information

International Regulations

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

Known to the State of California to cause developmental and reproductive toxicity.

lithium carb

5-10%

Massachusetts "Right To Know" List

zinc oxide

1-5%

Hydrated Aluminium Silicate

1-5%

CTL 32 CHOCOLATE CHIP

Rutile
5-10%

lithium carb
5-10%

2-aminoethanol
<1%

Rhode Island "Right To Know" List

zinc oxide
1-5%

Hydrated Aluminium Silicate
1-5%

Rutile
5-10%

2-aminoethanol
<1%

Minnesota "Right To Know" List

zinc oxide

Hydrated Aluminium Silicate

Rutile

2-aminoethanol

New Jersey "Right To Know" List

zinc oxide
1-5%

Hydrated Aluminium Silicate
1-5%

Rutile
5-10%

lithium carb
5-10%

2-aminoethanol
<1%

Pennsylvania "Right To Know" List

zinc oxide
1-5%

Hydrated Aluminium Silicate
1-5%

Rutile
5-10%

2-aminoethanol
<1%

Inventories

CTL 32 CHOCOLATE CHIP

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
All the ingredients are listed or exempt.

16. Other information

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	11/16/2016
Revision	4
Supersedes date	7/28/2016
SDS No.	4992

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
CTL 36 GINGER BREAD

1. Identification

Product identifier

Product name CTL 36 GINGER BREAD

Product number CTL 36 GINGER BREAD

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier

American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

none present

3. Composition/information on ingredients

Mixtures

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

CTL 36 GINGER BREAD

Inhalation	Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.
Ingestion	Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.
Skin contact	Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.
Eye contact	Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards	The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters	Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	For personal protection, see Section 8.

Environmental precautions

Environmental precautions	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up	Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material
Reference to other sections	For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions	Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions	Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s)	The identified uses for this product are detailed in Section 1.2.

CTL 36 GINGER BREAD

8. Exposure Controls/personal protection

Control parameters

Ingredient comments	Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls	No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.
Eye/face protection	No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.
Hand protection	No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.
Hygiene measures	Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.
Respiratory protection	No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Various colors.
Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0
Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none

CTL 36 GINGER BREAD

Oxidizing properties	none
Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Skin corrosion/irritation

Skin sensitization

Skin sensitization	Based on available data the classification criteria are not met.
Eye contact	May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability	No data available.
Biodegradation	Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient	No information available.

Mobility in soil

Mobility	Semi-mobile.

Results of PBT and vPvB assessment

CTL 36 GINGER BREAD

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labeling requirements for larger volumes.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

International Regulations

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

red iron oxide

1-5%

2-aminoethanol

<1%

CTL 36 GINGER BREAD

Hydrous Aluminium Silicate
1-5%

Rhode Island "Right To Know" List

red iron oxide
1-5%

2-aminoethanol
<1%

Hydrous Aluminium Silicate
1-5%

Minnesota "Right To Know" List

red iron oxide
1-5%

2-aminoethanol
<1%

Hydrous Aluminium Silicate
1-5%

New Jersey "Right To Know" List

red iron oxide
1-5%

2-aminoethanol
<1%

Hydrous Aluminium Silicate
1-5%

manganese dioxide
<1%

Pennsylvania "Right To Know" List

red iron oxide
1-5%

2-aminoethanol
<1%

Hydrous Aluminium Silicate
1-5%

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
All the ingredients are listed or exempt.

16. Other information

CTL 36 GINGER BREAD

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	7/28/2016
Revision	3
Supersedes date	7/27/2016
SDS No.	4995

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
CTL 41 MELON

1. Identification

Product identifier

Product name CTL 41 MELON

Product number CTL 41 MELON

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

none present

3. Composition/information on ingredients

Mixtures

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

Inhalation Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.

CTL 41 MELON

Ingestion Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.

Skin contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.

Eye contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

Environmental precautions

Environmental precautions Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material

Reference to other sections For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

CTL 41 MELON

Control parameters

Ingredient comments	Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls	No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.
Eye/face protection	No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.
Hand protection	No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.
Hygiene measures	Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.
Respiratory protection	No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Various colors.
Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0
Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none
Oxidizing properties	none

CTL 41 MELON

Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Skin corrosion/irritation

Skin sensitization

Skin sensitization	Based on available data the classification criteria are not met.
Eye contact	May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability	No data available.
Biodegradation	Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient	No information available.

Mobility in soil

Mobility	Semi-mobile.

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.

CTL 41 MELON

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labeling requirements for larger volumes.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

International Regulations

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

silica

1-5%

2-aminoethanol

<1%

Hydrated Aluminium Silicate

5-10%

CTL 41 MELON

zinc oxide
1-5%

Rhode Island "Right To Know" List

silica
1-5%

2-aminoethanol
<1%

Hydrated Aluminium Silicate
5-10%

zinc oxide
1-5%

Minnesota "Right To Know" List

silica
1-5%

2-aminoethanol
<1%

Hydrated Aluminium Silicate
5-10%

zinc oxide
1-5%

New Jersey "Right To Know" List

silica
1-5%

2-aminoethanol
<1%

Hydrated Aluminium Silicate
5-10%

zinc oxide
1-5%

Pennsylvania "Right To Know" List

silica
1-5%

2-aminoethanol
<1%

Hydrated Aluminium Silicate
5-10%

zinc oxide
1-5%

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

CTL 41 MELON

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
All the ingredients are listed or exempt.

16. Other information

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	7/28/2016
Revision	3
Supersedes date	7/27/2016
SDS No.	4999

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
CTL 42 FANTASIA

1. Identification

Product identifier

Product name CTL 42 FANTASIA

Product number CTL 42 FANTASIA

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier

American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

none present

3. Composition/information on ingredients

Mixtures

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

CTL 42 FANTASIA

Inhalation Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.

Ingestion Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.

Skin contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.

Eye contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

Environmental precautions

Environmental precautions Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material

Reference to other sections For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

CTL 42 FANTASIA

8. Exposure Controls/personal protection

Control parameters

Ingredient comments	Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls	No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.
Eye/face protection	No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.
Hand protection	No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.
Hygiene measures	Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.
Respiratory protection	No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Various colors.
Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0
Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none

CTL 42 FANTASIA

Oxidizing properties	none
Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Skin corrosion/irritation

Skin sensitization

Skin sensitization	Based on available data the classification criteria are not met.
Eye contact	May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability	No data available.
Biodegradation	Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient	No information available.

Mobility in soil

Mobility	Semi-mobile.

Results of PBT and vPvB assessment

CTL 42 FANTASIA

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labeling requirements for larger volumes.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

International Regulations

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

Hydrated Aluminium Silicate

10-30%

red iron oxide

1-5%

CTL 42 FANTASIA

2-aminoethanol
<1%

silica
5-10%

Rhode Island "Right To Know" List

Hydrated Aluminium Silicate
10-30%

red iron oxide
1-5%

2-aminoethanol
<1%

silica
5-10%

Minnesota "Right To Know" List

Hydrated Aluminium Silicate

red iron oxide

2-aminoethanol

silica

New Jersey "Right To Know" List

Hydrated Aluminium Silicate
10-30%

red iron oxide
1-5%

2-aminoethanol
<1%

silica
5-10%

Pennsylvania "Right To Know" List

Hydrated Aluminium Silicate
10-30%

red iron oxide
1-5%

2-aminoethanol
<1%

silica
5-10%

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

CTL 42 FANTASIA

US - TSCA 12(b) Export Notification

All the ingredients are listed or exempt.

16. Other information

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	7/28/2016
Revision	3
Supersedes date	7/27/2016
SDS No.	5000

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
CTL 43 AURORA

1. Identification

Product identifier

Product name CTL 43 AURORA

Product number CTL 43 AURORA

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier

American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Label elements

Hazard statements NC Not Classified.

Other hazards

none present

3. Composition/information on ingredients

Mixtures

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

Inhalation Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.

CTL 43 AURORA

Ingestion Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.

Skin contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.

Eye contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

Environmental precautions

Environmental precautions Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material

Reference to other sections For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

CTL 43 AURORA

Control parameters

Ingredient comments	Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls	No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.
Eye/face protection	No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.
Hand protection	No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.
Hygiene measures	Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.
Respiratory protection	No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Various colors.
Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0
Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none
Oxidizing properties	none

CTL 43 AURORA

Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Skin corrosion/irritation

Skin sensitization

Skin sensitization	Based on available data the classification criteria are not met.
Eye contact	May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability	No data available.
Biodegradation	Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient	No information available.

Mobility in soil

Mobility	Semi-mobile.

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.

CTL 43 AURORA

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General This package is shipped in accordance with ADR SP375, IATA A197 & IMDG 2.10.2.7.

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labelling requirements for larger volumes

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

International Regulations

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

Known to the State of California to cause developmental and reproductive toxicity.

lithium carb

5-10%

Massachusetts "Right To Know" List

lithium carb

5-10%

zinc oxide

1-5%

CTL 43 AURORA

Hydrated Aluminium Silicate
1-5%

2-aminoethanol
<1%

Rutile
5-10%

Rhode Island "Right To Know" List

zinc oxide
1-5%

Hydrated Aluminium Silicate
1-5%

2-aminoethanol
<1%

Rutile
5-10%

Minnesota "Right To Know" List

zinc oxide
1-5%

Hydrated Aluminium Silicate
1-5%

2-aminoethanol
<1%

Rutile
5-10%

New Jersey "Right To Know" List

lithium carb
5-10%

zinc oxide
1-5%

Hydrated Aluminium Silicate
1-5%

2-aminoethanol
<1%

Rutile
5-10%

Pennsylvania "Right To Know" List

zinc oxide
1-5%

Hydrated Aluminium Silicate
1-5%

2-aminoethanol
<1%

CTL 43 AURORA

Rutile
5-10%

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
All the ingredients are listed or exempt.

16. Other information

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	11/16/2016
Revision	5
Supersedes date	7/28/2016
SDS No.	5001

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
CTL 61 BUTTERCUP

1. Identification

Product identifier

Product name CTL 61 BUTTERCUP

Product number CTL 61 BUTTERCUP

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier

American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

none present

3. Composition/information on ingredients

Mixtures

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

Inhalation Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.

CTL 61 BUTTERCUP

Ingestion Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.

Skin contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.

Eye contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

Environmental precautions

Environmental precautions Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material

Reference to other sections For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

CTL 61 BUTTERCUP

Control parameters

Ingredient comments	Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls	No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.
Eye/face protection	No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.
Hand protection	No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.
Hygiene measures	Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.
Respiratory protection	No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Various colors.
Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0
Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none
Oxidizing properties	none

CTL 61 BUTTERCUP

Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Skin corrosion/irritation

Skin sensitization

Skin sensitization	Based on available data the classification criteria are not met.
Eye contact	May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity	Please read Section 2 complétely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability	No data available.
Biodegradation	Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient	No information available.

Mobility in soil

Mobility	Semi-mobile.

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.

CTL 61 BUTTERCUP

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labeling requirements for larger volumes.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

International Regulations

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

zinc oxide

1-5%

Hydrated Aluminium Silicate

5-10%

silica

1-5%

CTL 61 BUTTERCUP

2-aminoethanol
<1%

Rhode Island "Right To Know" List

zinc oxide
1-5%

Hydrated Aluminium Silicate
5-10%

silica
1-5%

2-aminoethanol
<1%

Minnesota "Right To Know" List

zinc oxide
1-5%

Hydrated Aluminium Silicate
5-10%

silica
1-5%

2-aminoethanol
<1%

New Jersey "Right To Know" List

zinc oxide

Hydrated Aluminium Silicate

silica

2-aminoethanol

Pennsylvania "Right To Know" List

zinc oxide
1-5%

Hydrated Aluminium Silicate
5-10%

silica
1-5%

2-aminoethanol
<1%

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
All the ingredients are listed or exempt.

CTL 61 BUTTERCUP

16. Other information

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	7/28/2016
Revision	3
Supersedes date	7/27/2016
SDS No.	5010

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET

CRYSTALTEX GLAZES (LEAD) – CTL SERIES (3)

Mfg. American Art & Clay Co.

SDS's for the following Glazes:

CTL 30 SINGED MAPLE
CTL 54 FIRECRACKER

SAFETY DATA SHEET
CTL 30 SINGED MAPLE

1. Identification

Product identifier

Product name CTL 30 SINGED MAPLE

Product number CTL 30 SINGED MAPLE

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier

American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

none present

3. Composition/information on ingredients

Mixtures

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

Inhalation Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.

CTL 30 SINGED MAPLE

Ingestion Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.

Skin contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.

Eye contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

Environmental precautions

Environmental precautions Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material

Reference to other sections For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

CTL 30 SINGED MAPLE

Control parameters

Ingredient comments	Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls	No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.
Eye/face protection	No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.
Hand protection	No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.
Hygiene measures	Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.
Respiratory protection	No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Various colors.
Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0
Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none
Oxidizing properties	none

CTL 30 SINGED MAPLE

Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Skin corrosion/irritation

Skin sensitization

Skin sensitization	Based on available data the classification criteria are not met.
Eye contact	May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability	No data available.
Biodegradation	Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient	No information available.

Mobility in soil

Mobility	Semi-mobile.

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.

CTL 30 SINGED MAPLE

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General This package is shipped in accordance with ADR SP375, IATA A197 & IMDG 2.10.2.7.

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labelling requirements for larger volumes

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

International Regulations

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

Known to the State of California to cause developmental and reproductive toxicity.

lithium carb

5-10%

Massachusetts "Right To Know" List

zinc oxide

1-5%

Hydrated Aluminium Silicate

1-5%

CTL 30 SINGED MAPLE

Rutile
5-10%

lithium carb
5-10%

2-aminoethanol
<1%

Rhode Island "Right To Know" List

zinc oxide
1-5%

Hydrated Aluminium Silicate
1-5%

Rutile
5-10%

2-aminoethanol
<1%

Minnesota "Right To Know" List

zinc oxide
1-5%

Hydrated Aluminium Silicate
1-5%

Rutile
5-10%

2-aminoethanol
<1%

New Jersey "Right To Know" List

zinc oxide
1-5%

Hydrated Aluminium Silicate
1-5%

Rutile
5-10%

lithium carb
5-10%

2-aminoethanol
<1%

Pennsylvania "Right To Know" List

zinc oxide
1-5%

Hydrated Aluminium Silicate
1-5%

Rutile
5-10%

CTL 30 SINGED MAPLE

2-aminoethanol
<1%

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
All the ingredients are listed or exempt.

16. Other information

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	11/16/2016
Revision	5
Supersedes date	7/28/2016
SDS No.	4990

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

SAFETY DATA SHEET
CTL 54 FIRECRACKER

1. Identification

Product identifier

Product name CTL 54 FIRECRACKER

Product number CTL 54 FIRECRACKER

Recommended use of the chemical and restrictions on use

Application ceramic glaze

Details of the supplier of the safety data sheet

Supplier

American Art Clay Co Inc
6060 Guion Road
Indianapolis,
IN 46254-1222
USA
Toll Free: 1-800-925-5195 ext. 1303
Local: 1-317-243-0066 ext. 1303

Emergency telephone number

Emergency telephone 1 317 243 0066 ext. 1303 Mon-Fri, 0900-1700 EST

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Label elements

Hazard statements NC Not Classified

Other hazards

none present

3. Composition/information on ingredients

Mixtures

Composition comments Only ingredients listed above are notifiable for this product. If none are shown then all ingredients are exempt.

4. First-aid measures

Description of first aid measures

General information --

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if any discomfort continues.

Skin Contact Wash skin thoroughly with soap and water.

Eye contact Rinse with water.

Most important symptoms and effects, both acute and delayed

CTL 54 FIRECRACKER

Inhalation Read Section 2 for any specific precautions associated with this product. In general, breathing any type of dust / mist can and may aggravate irritation of the throat and lungs.

Ingestion Read Section 2 for any specific precautions associated with the use of this product. Products with specific warnings about ingestion will give guidance there.

Skin contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic glazes, clays and special products will tend to have a drying effect on the skin and may cause some sensitivity to users with sensitive skin.

Eye contact Read Section 2 for any specific precautions associated with the use of this product. In general most ceramic and special products contain materials that maybe abrasive to eyes. Keeping materials from contacting the eyes is prudent. If contact does occur, flush with clean water, do not rub.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards The product is not believed to present a hazard due to its physical nature.

Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

Environmental precautions

Environmental precautions Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Methods and material for containment and cleaning up

Methods for cleaning up Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material

Reference to other sections For waste disposal, see Section 13. For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Read label before use. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry and cool place.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

CTL 54 FIRECRACKER

8. Exposure Controls/personal protection

Control parameters

Ingredient comments Only ingredients listed n Section 3 are notifiable for this product. If none are shown then all ingredients are exempt.

Exposure controls

Appropriate engineering controls No specific ventilations requirements unless the "FAN" pictogram is shown above or specified in Section 2.

Eye/face protection No specific eye protection required unless the "EYE PROTECTION" pictogram is shown above or specified in Section 2.

Hand protection No specific hand protection required unless the "HAND PROTECTION" pictogram is shown above or specified in Section 2.

Hygiene measures Using good personal hygiene practices is always appropriate. Keeping a clean work space, cleaning up properly when done, and not eating, drinking or smoking when using this product.

Respiratory protection No specific respiratory protection required unless the "RESPIRATOR" pictogram is shown above or specified in Section 2. Using the appropriate certified protection for the operation is important if required.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Various colors.
Odor	Almost odorless.
Odor threshold	No information available.
pH	6-8
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Relative density	Greater than 1.0
Solubility(ies)	Not applicable.
Partition coefficient	No information available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	none

CTL 54 FIRECRACKER

Oxidizing properties	none
Other information	Not applicable.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	No particular stability concerns.
Possibility of hazardous reactions	None known.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None known.

11. Toxicological information

Information on toxicological effects

Toxicological effects	Please read Section 2 thoroughly to understand the toxicological risks, (if any) and precautions for safe use (if any).

Skin corrosion/irritation

Skin sensitization

Skin sensitization	Based on available data the classification criteria are not met.
Eye contact	May cause temporary eye irritation.

12. Ecological Information

Ecotoxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Toxicity

Toxicity	Please read Section 2 completely. If any environmental warnings such as; H411 or H412 are listed in Section 2, please use appropriate procedures when disposing of product and container. Do not put materials into waterways or sewers.

Persistence and degradability

Persistence and degradability	No data available.
Biodegradation	Not inherently biodegradable.

Bioaccumulative potential

Partition coefficient	No information available.

Mobility in soil

Mobility	Semi-mobile.

Results of PBT and vPvB assessment

CTL 54 FIRECRACKER

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

Please refer to Section 2 for any environmental hazards associated with this product. If H411/H412 warnings are shown then please verify packaging and labeling requirements for larger volumes.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

International Regulations

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

2-aminoethanol

<1%

Hydrated Aluminium Silicate

1-5%

CTL 54 FIRECRACKER

Rhode Island "Right To Know" List

2-aminoethanol
<1%

Hydrated Aluminium Silicate
1-5%

Minnesota "Right To Know" List

2-aminoethanol
<1%

Hydrated Aluminium Silicate
1-5%

New Jersey "Right To Know" List

2-aminoethanol
<1%

Hydrated Aluminium Silicate
1-5%

Pennsylvania "Right To Know" List

2-aminoethanol
<1%

Hydrated Aluminium Silicate
1-5%

Inventories

Canada - DSL/NDSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
All the ingredients are listed or exempt.

16. Other information

General information	The following are the top 5 materials by weight listed for New Jersey (if applicable):- Water 7732-18-5, Non Lead Frit65997-18-4, Hydrated Aluminum Silicate1332-58-7, Calcium Silicate 13983-17-0 Various Pigments
Revision date	7/28/2016
Revision	3
Supersedes date	7/27/2016
SDS No.	5009

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Product Number: 871AA **Product Name:** Hydrogen Peroxide 3%
Issuing Date: May 11, 2015 **Revision Date:** None **Revision Number:** 0

VI·JON®

Safety Data Sheet

The supplier identified below generated this SDS using the UL SDS template. UL did not test, certify, or approve the substance described in this SDS, and all information in this SDS was provided by the supplier or was reproduced from publically available regulatory data sources. UL makes no representations or warranties regarding the completeness or accuracy of the information in this SDS and disclaims all liability in connection with the use of this information or the substance described in this SDS. The layout, appearance and format of this SDS is © 2014 UL LLC. All rights reserved.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier CVS HYDROGEN PEROXIDE 3%

Product Name **871AA Hydrogen Peroxide 3%**

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use First Aid Antiseptic, Oral Debriding Agent

Uses advised against Use only as directed.

Details of the supplier of the safety data sheet

Supplier Name Vi-Jon Inc.

Supplier Address Vi-Jon Inc.
8800 Page Avenue
Saint Louis
MO
63114
US

Supplier Phone Number Phone: 314-427-1000 (M-F 8am-4pm CST)
Fax:3144271010

Supplier Email info@vijon.com

Emergency telephone number Chemtrec: 1-800-424-9300 (24-Hour)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

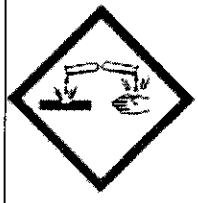
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1

GHS Label elements, including precautionary statements

Emergency Overview

Signal word **Danger**

Hazard Statements
Causes skin irritation
Causes serious eye damage



Appearance: Clear, Colorless Liquid **Physical State:** Liquid **Odor:** Ozone-like to odorless

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response
Specific treatment (see supplemental first aid instructions on this label)

Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician

Skin
If skin irritation occurs: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse

Precautionary Statements - Storage
None

Precautionary Statements - Disposal
None

Hazards not otherwise classified (HNOC)
Not applicable

Unknown Toxicity
0% of the mixture consists of ingredient(s) of unknown toxicity

Other information
Harmful to aquatic life with long lasting effects

Interactions with Other Chemicals
No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%	Trade Secret
Hydrogen Peroxide (Stabilized) 3%	7722-84-1	0 - 10	*
Purified Water	7732-18-5	50 - 100	*

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures

General Advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Do not rub affected area. Seek immediate medical attention/advice.

Skin Contact In the case of skin irritation or allergic reactions, wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation persist.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur.

Ingestion Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects Burning sensation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media
CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical
No information available.

Uniform Fire Code Irritant: Liquid

Hazardous Combustion Products
Carbon oxides.

Explosion Data
Sensitivity to Mechanical Impact No.

Sensitivity to Static Discharge No.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid contact with eyes and clothing. Ensure adequate ventilation. Use personal protective equipment as required.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental Precautions

Environmental Precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

Incompatible Products Strong acids. Strong oxidizing agents. Strong bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines There is no exposure data pertaining to the Product. This section reflects exposure data pertaining to individual ingredients.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrogen Peroxide 3% 7722-84-1	TWA: 1 ppm	TWA: 1 ppm TWA: 1.4 mg/m^3 (vacated) TWA: 1 ppm (vacated) TWA: 1.4 mg/m^3	IDLH: 75 ppm TWA: 1 ppm TWA: 1.4 mg/m^3

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits Immediately Dangerous to Life or Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992) See section 15 for national exposure control parameters

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Tight sealing safety goggles.

Skin and Body Protection Wear protective gloves and protective clothing. Long sleeved clothing. Impervious gloves.

Respiratory Protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical State	Liquid		
Appearance	Clear, Colorless Liquid	**Odor**	Ozone-like to Odorless
Color	Colorless	**Odor Threshold**	No information available

Property	Values	Remarks Method
pH	4.5	None known
Melting / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	No data available	None known
Evaporation Rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		
Upper flammability limit	No data available	
Lower flammability limit	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	No data available	None known
Water Solubility	Miscible in water	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No data available	
Oxidizing Properties	No data available	

Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	No data available

10. STABILITY AND REACTIVITY

Reactivity
No data available.

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization
Hazardous polymerization does not occur.

Conditions to avoid
None known based on information supplied.

Incompatible materials
Strong acids. Strong oxidizing agents. Strong bases.

Hazardous Decomposition Products
Carbon oxides.

When used in accordance with the directions.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available.

Eye Contact Specific test data for the substance or mixture is not available.

Skin Contact Specific test data for the substance or mixture is not available.

Ingestion Specific test data for the substance or mixture is not available.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrogen Peroxide (Stabilized) 3% 7722-84-1	= 801 mg/kg (Rat)	= 4060 mg/kg (Rat) = 2000 mg/kg (Rabbit)	= 2 g/m^3 (Rat) 4 h
Purified Water 7732-18-5	> 90 mL/kg (Rat)	-	-

Information on toxicological effects

Symptoms May cause skin redness. May cause redness and tearing of the eyes. May cause blindness. Burning.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Hydrogen Peroxide (Stabilized) 3% 7722-84-1	A3	Group 3		

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive Toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Chronic Toxicity No known effect based on information supplied.

Target Organ Effects Respiratory system. Eyes. Skin. Blood. Lungs.

Aspiration Hazard No information available.

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)
26,700.00 mg/kg
ATEmix (dermal)
66,667.00 mg/kg (ATE)
ATEmix (inhalation-dust/mist)
67.00 mg/l
ATEmix (inhalation-vapor)
367.00 ATEmix

12. ECOLOGICAL INFORMATION

There is no ecological data on the Product. The Product ingredients are expected to be safe for the environment at concentrations predicted under normal use and accidental spill scenarios. Packaging components are compatible with the conventional solid waste management practices.

Ecotoxicity
No information available.

Persistence and Degradability
No information available.

Bioaccumulation
No information available

Other adverse effects
No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal methods	This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.
Contaminated Packaging	Dispose of contents/containers in accordance with local regulations.
California Hazardous Waste Codes	311

14. TRANSPORT INFORMATION

DOT	Not Regulated
Proper Shipping Name	Not Regulated
Hazard Class	N/A
TDG	Not Regulated
MEX	Not Regulated
ICAO	Not Regulated
IATA	Not Regulated
Proper Shipping Name	Not Regulated
Hazard Class	N/A
IMDG/IMO	Not Regulated
Hazard Class	N/A
RID	Not Regulated
ADR	Not Regulated
ADN	Not Regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	All components are listed either on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Hydrogen Peroxide (Stabilized) 3% 7722-84-1	X	X	X	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Hydrogen Peroxide (Stabilized) 3% 7722-84-1		1000 lb	

US State Regulations

California Proposition 65 - NONE

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

US State Regulations. .

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Hydrogen Peroxide (Stabilized) 3% 7722-84-1	X	X	X	X	

International Regulations

Mexico
National occupational exposure limits

Component	Carcinogen Status	Exposure Limits
Hydrogen Peroxide (Stabilized) 3% 7722-84-1 (0 - 10)	A3	Mexico: TWA 1 ppm Mexico: TWA 1.5 mg/m^3 Mexico: STEL 2 ppm Mexico: STEL 3 mg/m^3

Mexico - Occupational Exposure Limits - Carcinogens
A3 - Confirmed Animal Carcinogen

Canada
WHMIS Hazard Class
D2B



16. OTHER INFORMATION

NFPA	**Health Hazards**	1	**Flammability**	0	**Instability**	0	**Physical and Chemical Hazards** - NONE
HMIS	**Health Hazards**	3	**Flammability**	0	**Physical Hazard**	0	**Personal Protection** X

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Approved and Updated by Vi-Jon, Inc.
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End of Safety Data Sheet