

INTEGRATED PEST MANAGEMENT (IPM) PRE-NOTIFICATION DOCUMENT

Date: 05/20/2026

To: Dear Parents, Guardians, District Staff and Service Contractors for Monroe Township School District

From: Jerry Tague, Director of Facilities Phone: 732-521-1500 ext. 4107

New Jersey State Regulation requires that the information contained in this letter be given to you regarding the School Integrated Pest Management Policy.

On the following date **05/23/2026** the Board of Education has scheduled a pest control application to the outside grounds. The reason for the application of pest control products is spot weed control and fertilization.

Should the original application date be canceled the alternate dates are the following: 05/24/26-05/25/26

The specific location(s) are as follows: Monroe Township Middle School Athletic Fields and Common Grounds, Oak Tree Elementary Baseball and Softball Fields Monroe Township High School Common Grounds. Herbicides are only applied when they are necessary to maintain or protect the health of the school property and reduce risks of injury. Sanitation, as well as physical and biological control measures, should be considered as a part of a good integrated pest management program. Pesticides may be used as another part of a good pest control program. Herbicides are chemical substances used to control living organisms and vary in degree of toxicity. **The United States Environmental Protection Agency (EPA) and the New Jersey Department of Environmental Protection (DEP) register herbicide to determine that the use of herbicides, in accordance with instructions printed on the label does not pose an unreasonable risk to human health and the environment.** Nevertheless, the EPA and DEP cannot guarantee that registered herbicides do not pose any risk to human health, thus unnecessary exposure to herbicides should be avoided. The EPA has issued the statement that where possible, persons who are potentially sensitive, such as pregnant women, infants and children, should avoid unnecessary herbicide exposure."

All treated areas will be posted 72 hours prior to any pest control applications to the outside grounds. This is an informative posting and contains similar information to this letter. Posting signs will remain on the premises 72 hours after the application. There shall be a 7- hour reentry period, in which all people and pets shall remain off the treated areas.

Products to be Applied:

PRODUCT NAME	EPA REGISTRATION # (S)	PRECAUTION STATEMENT
19-00-05 -Urea Potassium Chloride	57-13-6 7447-40-7	Caution, Please Stay off Treated Areas for 7 hours
Barricade	Prodiamine 100-1139	Caution, Please Stay off Treated Areas for 7 hours
Escalade 2	Dimethylamine Salt 2,4-Dichlorophenoxyacetic Acid-2008-39-1 Methylheptyl Ester of Floroxypyr-81406-37-3 Dicamba (3,6-Dichloro-o-Anisic Acid 1918-00-9	Caution, Please Stay off Treated Areas for 7 hours

SECTION 1: PRODUCT AND COMPANY INFORMATION

Product Name(s) SynaTek® Liquid Turf Fertilizers including TurFlo®, ArborFlo®, FertAminos®, RootFlo®, and Fertimate™ Fertigation Liquids.
Uses and Restrictions Fertilizer / For commercial or professional use only
Manufacturer SynaTek, LP, 737 Hagey Rd – Unit A, Souderton, PA 18964
Telephone (888) 408-5433 **Web Site** www.synateksolutions.com
Emergency Contact / Number CHEMTREC 1-800-424-9300

SECTION 2: HAZARD IDENTIFICATION



Hazards
 Skin Corrosion/Irritation Category 2 – Causes skin irritation
 Eye Damage/Irritation Category 2B – Causes eye irritation
 Specific target organ toxicity, single occurrence Category 3 – May cause respiratory irritation

Signal Word WARNING

Precautionary Statements

Avoid breathing dust. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves and eye protection. Call a POISON CENTER or a doctor/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 eye irritation persists get medical advice/attention.
 IF ON SKIN: Wash with soap and water.
 If skin irritation occurs: get medical advice/attention.
 Take off contaminated clothing and wash before reuse. Store in a well ventilated place. Keep container tightly closed. Store locked up. Dispose of contents/container to an approved waste disposal plant.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component Name	CAS Number	Percentage
Diammonium phosphate	7783-28-0	0 – 60
Potassium chloride	7747-40-7	0 – 35
Non-hazardous ingredients	Mixture	balance

SECTION 4: FIRST AID MEASURES

Most Important Symptoms / Effects

Working around the product for long periods or vapors from the product may cause slight irritation to the eyes or skin. Direct contact may cause a skin rash or irritation; direct eye contact may cause blurred vision or eye irritation. Inhalation can cause respiratory irritation, dizziness or nausea. Ingesting large amounts may cause gastrointestinal irritation, nausea, vomiting or diarrhea.

Indication of Immediate Medical Attention and Special Treatment, if Necessary

Persistent eye or skin irritation, ingestion, difficulty in breathing, unconsciousness or respiratory distress.

Eye Contact

Flush eyes immediately with water for at least 15 minutes. Seek immediate medical advice or attention if irritation persists.

Skin Contact

Wash exposed areas promptly with water and mild soap. Remove contaminated clothing immediately and launder before reuse. Seek medical advice or attention if irritation occurs and persists.

Ingestion

Never give anything by mouth to an unconscious person. Rinse mouth if conscious. Drink one to two glasses or more of water to dilute swallowed material. Do not induce vomiting due to danger of aspiration into the lungs. Obtain medical advice or contact your local Poison Control Center 1-800-222-1222.

Inhalation

Move to fresh air. If not breathing, if breathing is irregular, or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel and seek medical attention.

SECTION 5: FIREFIGHTING MEASURES

Suitable Extinguishing Media

Product does not burn. Use water spray, dry chemical, foam or CO₂ as applicable for burning materials. Use a water spray to cool fire-exposed containers, structures and to protect personnel.

Special Firefighting Procedures

May produce noxious or toxic fumes, gases, and vapors in an intense fire. Exposed firefighters should wear MSHA/NIOSH approved self-contained breathing apparatus with full-face mask and full protective equipment. Do not enter confined fire space without full equipment and a positive pressure NIOSH approved self-contained breathing apparatus.

Unusual Firefighting Hazards

None known

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions

Isolate release area and keep unnecessary people away. See Section 8 for personal protection gear.

Methods for Cleaning Up

Clean up spills observing precautions in Section 8. Prevent material from entering storm drains or waterways. Small amounts may be flushed with water; large amounts should be collected for later use or disposal.

SECTION 7: HANDLING AND STORAGE

Handling

Follow accepted work and hygiene practices for neutral liquid materials. Avoid contact with eyes or prolonged contact with skin. Avoid inhalation. Empty containers may contain residue.

Storage

Keep containers in a dry, cool, well-ventilated area. Keep away from incompatible materials, foodstuffs, children or pets.

SECTION 8: EXPOSURE CONTROL AND PERSONAL PROTECTION

Exposure Limits

Component Name	ACGIH TLV-TWA	OSHA PEL-TWA
Diammonium phosphate	25 ppm	50 ppm

Engineering Controls

Use appropriate ventilation to maintain good air quality. Have eye wash stations and safety showers readily available.

Eye and Face Protection

Wear safety glasses with side-shields conforming to ANSI Z-87; use face shield if splashing is possible.

Skin Protection

Wear protective gloves to avoid repeated or prolonged contact. Additional body garments should be used based upon the task being performed.

Respiratory Protection

Not normally required. Use a properly fitted NIOSH respirator in areas where the exposure is unknown or above the OSHA PEL or ACGIH TLV.

General Hygiene

Wash thoroughly with soap and water after task or shift, when using the restroom or before eating.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Physical State	Liquid, color varies	Flash Point	Not Applicable
Specific Gravity (Water=1)	1.1 – 1.3	Upper Flammability Limits	Not Applicable
Evaporation Rate	Not Determined	Lower Flammability Limits	Not Applicable
pH	5.5 – 9.5	Auto-ignition Temperature	Not Applicable
Solubility in Water	Complete	Decomposition Temperature	Not Determined
Odor	Characteristic	Vapor Pressure	Not Determined
Odor Threshold	Not Determined	Vapor Density (Air=1)	Not Determined
Melting/Freezing Point	Not Determined	Partition Coefficient (n-octanol/water)	Not Determined
Boiling Range	Not Determined	Viscosity	Not Determined
Initial Boiling Point	212 °F	Critical Temperature	Not Applicable

Note: Physical and chemical properties are provided for safety, health and environmental considerations and do not fully represent product specifications. Those should be requested separately.

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Does not react

Chemical Stability

Stable under normal conditions of storage and handling.

Possibility of Hazardous Reactions

Will not occur

Conditions to Avoid

Storage in direct sunlight or temperatures above 120 °F.

Incompatible Materials

Strong oxidizing agents

Hazardous Decomposition Products

Ammonia, nitrogen oxides, formic acid and formaldehyde

SECTION 11: TOXICOLOGICAL INFORMATION

Specific toxicity tests have not been conducted on this mixture. In accordance with OSHA's Hazard Communication Standard 1910.1200, this mixture is assumed to have the same health hazards as its significant components.

Acute Effects

May cause slight irritation to the eyes and skin. Ingestion may cause gastrointestinal irritation and vomiting. Irritating to the respiratory system.

Target Organ Effects

None known

Chronic Effects

Repeated or long term exposure may aggravate acute symptoms.

Carcinogenicity

This product does not contain carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	Not Determined
Mobility	Not Determined
Degradability	Not Determined
Bioaccumulation	Not Determined

SECTION 13: DISPOSAL CONSIDERATION

Dispose of this product in compliance with all applicable federal, state and local regulations. Empty containers may contain residues.

SECTION 14: TRANSPORT INFORMATION

Proper Shipping Name Not Regulated

SECTION 15: REGULATORY INFORMATION

TSCA Status

All components are listed in the TSCA inventory

SARA 311/312 Reporting Categories

None

SARA 313 Reportable Ingredients

None

SECTION 16: OTHER INFORMATION

Department Issuing SDS Health and Safety

Disclaimer

The data presented herein is believed accurate for the specific material, but is in no way guaranteed. The information herein may not be applicable if this specific material is used in combination with other material(s). SynaTek assumes no liability and makes no warranty in connection with any use for this specific material. Other safety measures in addition to those indicated may be required. The user, therefore, assumes full responsibility, both as to persons and to property, for the safe use of these materials.

Information listed herein, such as Hazards, First Aid, etc., is abbreviated. For more detailed information, contact the manufacturer at our address, or review the information contained in the reference section listed above.

BARRICADE 4FL

Version 2.2 Revision Date: 01/13/2022 SDS Number: S1363384383 This version replaces all previous versions.

SECTION 1. IDENTIFICATION

Product name : BARRICADE 4FL
 Design code : A12333G
 Product Registration number : 100-1139

Manufacturer or supplier's details

Company name of supplier : Syngenta Crop Protection, LLC
 Address : Post Office Box 18300
 Greensboro NC 27419
 United States of America (USA)
 Telephone : 1 800 334 9481
 Telefax : 1 336 632 2192
 E-mail address : sds.requests@syngenta.com
 Emergency telephone : 1 800 888 8372

Recommended use of the chemical and restrictions on use

Recommended use : Herbicide
 Restrictions on use : General Use Pesticide

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
prodiamine	29091-21-2	40.7
propane-1,2-diol	57-55-6	>= 1 - < 5

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

BARRICADE 4FL

Version 2.2 Revision Date: 01/13/2022 SDS Number: S1363384383 This version replaces all previous versions.

- General advice : Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment.
- If inhaled : Take the victim into fresh air.
If breathing is irregular or stopped, administer artificial respiration.
Keep patient warm and at rest.
Call a physician or poison control center immediately.
- In case of skin contact : Take off all contaminated clothing immediately.
Wash off immediately with plenty of water.
If skin irritation persists, call a physician.
Wash contaminated clothing before re-use.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses.
Immediate medical attention is required.
- If swallowed : If swallowed, seek medical advice immediately and show this container or label.
Do NOT induce vomiting.
- Most important symptoms and effects, both acute and delayed : Nonspecific
No symptoms known or expected.
- Notes to physician : There is no specific antidote available.
Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Extinguishing media - small fires
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media - large fires
Alcohol-resistant foam
or
Water spray
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards during fire fighting : As the product contains combustible organic ingredients, fire will produce dense black smoke containing hazardous products of combustion (see section 10).
Exposure to decomposition products may be a hazard to health.
- Further information : Do not allow run-off from fire fighting to enter drains or water courses.
Cool closed containers exposed to fire with water spray.
- Special protective equipment for fire-fighters : Wear full protective clothing and self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.

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Version 2.2 Revision Date: 01/13/2022 SDS Number: S1363384383 This version replaces all previous versions.

- Environmental precautions : Prevent further leakage or spillage if safe to do so.
Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Clean contaminated surface thoroughly.
Clean with detergents. Avoid solvents.
Retain and dispose of contaminated wash water.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : No special protective measures against fire required.
Avoid contact with skin and eyes.
When using do not eat, drink or smoke.
For personal protection see section 8.
- Conditions for safe storage : No special storage conditions required.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep out of the reach of children.
Keep away from food, drink and animal feedingstuffs.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
prodiamine	29091-21-2	TWA	4 mg/m ³	Syngenta
propane-1,2-diol	57-55-6	TWA	10 mg/m ³	US WEEL

- Engineering measures : THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THE PRODUCT. FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.
The extent of these protection measures depends on the actual risks in use.
Maintain air concentrations below occupational exposure standards.
Where necessary, seek additional occupational hygiene advice.

BARRICADE 4FL

Version 2.2 Revision Date: 01/13/2022 SDS Number: S1363384383 This version replaces all previous versions.

Personal protective equipment

- Respiratory protection : No personal respiratory protective equipment normally required.
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- Hand protection
- Remarks : No special protective equipment required.
- Eye protection : No special protective equipment required.
- Skin and body protection : No special protective equipment required.
Select skin and body protection based on the physical job requirements.
- Protective measures : The use of technical measures should always have priority over the use of personal protective equipment.
When selecting personal protective equipment, seek appropriate professional advice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Color : yellow
- Odor : No data available
- Odor Threshold : No data available
- pH : 6.68
Concentration: 1 % w/v
- Melting point/range : No data available
- Boiling point/boiling range : No data available
- Flash point : 210.9 °F / 99.4 °C
Method: Pensky-Martens closed cup
- Evaporation rate : No data available
- Flammability (solid, gas) : No data available
- Upper explosion limit / Upper flammability limit : No data available
- Lower explosion limit / Lower flammability limit : No data available
- Vapor pressure : No data available
- Relative vapor density : No data available

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Density : 1.17 g/cm³

Solubility(ies)

 Water solubility : No data available

 Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity

 Viscosity, kinematic : No data available

Explosive properties : No data available

Oxidizing properties : No data available

Particle size : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : None reasonably foreseeable.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.

Conditions to avoid : No decomposition if used as directed.

Incompatible materials : None known.

Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Ingestion
Inhalation
Skin contact
Eye contact

Acute toxicity**Product:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg

Components:**prodiamine:**

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

BARRICADE 4FL

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Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat, male and female): > 0.256 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation**Product:**

Species : Rabbit
Result : No skin irritation

Components:**prodiamine:**

Species : Rabbit
Result : No skin irritation

Serious eye damage/eye irritation**Product:**

Species : Rabbit
Result : No eye irritation

Components:**prodiamine:**

Species : Rabbit
Result : No eye irritation

Respiratory or skin sensitization**Product:**

Species : Guinea pig
Result : Did not cause sensitization on laboratory animals.

Components:**prodiamine:**

Species : Guinea pig
Result : Did not cause sensitization on laboratory animals.

BARRICADE 4FL

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Germ cell mutagenicity

Components:

prodiamine:

Germ cell mutagenicity - Assessment : Animal testing did not show any mutagenic effects.

Carcinogenicity

Components:

prodiamine:

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

IARC No ingredient 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 on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Components:

prodiamine:

Reproductive toxicity - Assessment : Animal testing did not show any effects on fertility.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 91 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 12 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : ErC50 (Raphidocelis subcapitata (freshwater green alga)): 0.113 mg/l
Exposure time: 72 h

EC10 (Raphidocelis subcapitata (freshwater green alga)): 0.011 mg/l
End point: Growth rate
Exposure time: 72 h

BARRICADE 4FL

Version 2.2 Revision Date: 01/13/2022 SDS Number: S1363384383 This version replaces all previous versions.

Components:**prodiamine:**

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.829 mg/l
Exposure time: 96 h
- LC50 (Lepomis macrochirus (Bluegill sunfish)): > 0.552 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 0.013 mg/l
Exposure time: 48 h
Remarks: Highest attainable concentration
- Toxicity to algae/aquatic plants : ErC50 (Raphidocelis subcapitata (freshwater green alga)): 0.004 mg/l
Exposure time: 96 h
- NOEC (Raphidocelis subcapitata (freshwater green alga)): 0.00045 mg/l
End point: Growth rate
Exposure time: 96 h
- ErC50 (Navicula pelliculosa (Freshwater diatom)): 0.0047 mg/l
Exposure time: 72 h
- NOEC (Navicula pelliculosa (Freshwater diatom)): 0.0027 mg/l
End point: Growth rate
Exposure time: 72 h
- M-Factor (Acute aquatic toxicity) : 100
- Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 0.012 mg/l
Exposure time: 87 d
Test Type: Early-life Stage
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.0066 mg/l
Exposure time: 21 d
- M-Factor (Chronic aquatic toxicity) : 100

Persistence and degradability**Components:****prodiamine:**

- Biodegradability : Remarks: No data available
- Stability in water : Degradation half life: 3 - 15 d
Remarks: Product is not persistent.

BARRICADE 4FL

Version 2.2 Revision Date: 01/13/2022 SDS Number: S1363384383 This version replaces all previous versions.

Bioaccumulative potential

Components:

prodiamine:

Bioaccumulation : Remarks: Bioaccumulates

Mobility in soil

Components:

prodiamine:

Distribution among environmental compartments : Remarks: immobile
 Stability in soil : Dissipation time: 30 - 113 d
 Percentage dissipation: 50 % (DT50)
 Remarks: Product is not persistent.

Other adverse effects

Components:

prodiamine:

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Do not contaminate ponds, waterways or ditches with chemical or used container.
 Do not dispose of waste into sewer.
 Where possible recycling is preferred to disposal or incineration.
 If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging : Empty remaining contents.
 Triple rinse containers.
 Empty containers should be taken to an approved waste handling site for recycling or disposal.
 Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 3082
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PRODIAMINE)

BARRICADE 4FL

Version 2.2 Revision Date: 01/13/2022 SDS Number: S1363384383 This version replaces all previous versions.

Class : 9
 Packing group : III
 Labels : 9

IATA-DGR

UN/ID No. : UN 3082
 Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
 (PRODIAMINE)
 Class : 9
 Packing group : III
 Labels : Miscellaneous
 Packing instruction (cargo aircraft) : 964
 Packing instruction (passenger aircraft) : 964
 Environmentally hazardous : yes

IMDG-Code

UN number : UN 3082
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
 N.O.S.
 (PRODIAMINE)
 Class : 9
 Packing group : III
 Labels : 9
 EmS Code : F-A, S-F
 Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation**49 CFR**

Not regulated as a dangerous good

Remarks : Shipment by ground under DOT is non-regulated; however it may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

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

Harmful if inhaled.

Harmful if swallowed.

Harmful if absorbed through skin.

Avoid breathing vapors.

BARRICADE 4FL

Version 2.2 Revision Date: 01/13/2022 SDS Number: S1363384383 This version replaces all previous versions.

Avoid contact with skin, eyes or clothing.
 Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.
 Wash thoroughly with soap and water after handling.
 Remove and wash contaminated clothing before re-use.

CERCLA Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards

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

dioxosilane	14808-60-7
1,4-dioxane	123-91-1

Pennsylvania Right To Know

water	7732-18-5
prodiamine	29091-21-2
propane-1,2-diol	57-55-6
orthophosphoric acid	7664-38-2
sodium hydroxide	1310-73-2

Maine Chemicals of High Concern

dioxosilane	14808-60-7
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Vermont Chemicals of High Concern

1,4-dioxane	123-91-1
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Washington Chemicals of High Concern

1,4-dioxane	123-91-1
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The ingredients of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

BARRICADE 4FL

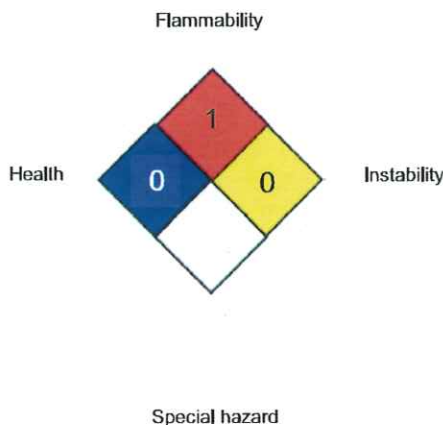
Version
2.2Revision Date:
01/13/2022SDS Number:
S1363384383

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SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

HEALTH	/	0
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "/" represents a chronic hazard, while the "0" represents the absence of a chronic hazard.

Full text of other abbreviations

US WEEL : USA. Workplace Environmental Exposure Levels (WEEL)
 US WEEL / TWA : 8-hr TWA

AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quanti-

BARRICADE 4FL

Version	Revision Date:	SDS Number:	This version replaces all previous versions.
2.2	01/13/2022	S1363384383	

tative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 01/13/2022

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.

US / Z8



1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: ESCALADE® 2 HERBICIDE

EPA Reg. No.: 228-442

Product Type: Herbicide

Company Name: Nufarm Americas Inc.
11901 S. Austin Avenue
Alsip, IL 60803
1-800-345-3330

Telephone Numbers: For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident,
Call CHEMTREC Day or Night: 1-800-424-9300
For Medical Emergencies Only, Call 1-877-325-1840

This product is an EPA FIFRA registered pesticide. Some classifications on this SDS are not the same as the FIFRA label. Certain sections of this SDS are superseded by federal law governed by EPA for a registered pesticide. Please see Section 15. REGULATORY INFORMATION for explanation.

2. HAZARDS IDENTIFICATION

HEALTH HAZARDS:

Eye irritation	Category 2A
Skin irritation	Category 2
Acute toxicity, oral	Category 4
Specific target organ toxicity – Repeated exposure	Category 2

ENVIRONMENTAL HAZARDS:

Hazardous to aquatic environment, acute	Category 1
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SIGNAL WORD:

WARNING

HAZARD STATEMENTS:

Causes serious eye irritation. Harmful if swallowed. May cause damage to organs (liver, kidneys) through prolonged or repeated exposure. Very toxic to aquatic life.



PRECAUTIONARY STATEMENTS

Wash hands and exposed skin thoroughly after handling. Wear chemical resistant gloves. Wear face shield, chemical goggles or shielded safety glasses. Do not eat, drink or smoke when using this product. Do not breathe mist/vapors/spray.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if safe to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water. Specific treatment: See **Section 4** First Aid and product label instructions. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

IF SWALLOWED: Call a poison center or doctor if you feel unwell. Rinse mouth.

Get medical advice/attention if you feel unwell.

Avoid unintended release to the environment. Collect spillage

Dispose of contents/container in accordance with state and federal regulations. See **Section 13** and product label for disposal instructions.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	% BY WEIGHT
Dimethylamine Salt of 2,4-Dichlorophenoxyacetic Acid	2008-39-1	38.3 – 40.7
1-Methylheptyl Ester of Fluroxypyr	81406-37-3	5.6 – 6.2
Dicamba (3,6-Dichloro-o-Anisic Acid)	1918-00-9	3.9 – 4.3
Solvent Naphtha (Petroleum), Heavy Aromatic	64742-94-5	5.9 – 6.5
Other Ingredients:	Trade Secret	Trade Secret

Synonyms: Mixture of 2,4-D DMA, Fluroxypyr MHE, and Dicamba
 Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

If in Eyes: Hold eye open and rinse slowly and gently with water for 15 to 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.

If Swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Most important symptoms/effects: Eye exposure may cause moderate irritation. Skin exposure may cause irritation.

Indication of Immediate medical attention and special treatment if needed: There is no specific antidote if this product is ingested. Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Recommended for large fires: foam or water spray. Recommended for small fires: dry chemical or carbon dioxide.

Special Fire Fighting Procedures: Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full fire-fighting turn out gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

Unusual Fire and Explosion Hazards: If water is used to fight fire or cool containers, dike to prevent runoff contamination of municipal sewers and waterways.

Hazardous Decomposition Materials (Under Fire Conditions): May produce gases such as hydrogen chloride and oxides of carbon and nitrogen.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

Environmental Precautions: Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

Methods for Containment: Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

Methods for Cleanup and Disposal: Pump any free liquid into an appropriate closed container. Collect washings for disposal. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.

Other Information: Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE

HANDLING:

Do not get in eyes or on clothing. Avoid contact with skin. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing/Personal Protective Equipment (PPE) immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately

SAFETY DATA SHEET

ESCALADE® 2 HERBICIDE

with soap and water. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

STORAGE:

Always use original container to store pesticides in a secured warehouse or storage building. Store at temperatures above 25° F. Protect from freezing. If allowed to freeze, remix well before using. This does not alter the product. Containers should be opened in well-ventilated areas. Keep container tightly sealed when not in use. Do not stack cardboard cases more than two pallets high. Do not store near open containers of fertilizer, seed or other pesticides. Do not contaminate water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

Personal Protective Equipment:

Eye/Face Protection: To avoid contact with eyes, wear face shield, goggles or safety glasses. An emergency eyewash or water supply should be readily accessible to the work area.

Skin Protection: To avoid contact with skin, wear long-sleeved shirt, long pants, shoes, socks and chemical-resistant gloves. When mixing or loading, cleaning up spills or equipment or otherwise expose to the concentrate also wear a chemical-resistant apron. An emergency shower or water supply should be readily accessible to the work area.

Respiratory Protection: Not normally required. If vapors or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

General Hygiene Considerations: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

Exposure Guidelines:

Component	OSHA		ACGIH		Unit
	TWA	STEL	TWA	STEL	
DMA Salt of 2,4-D	10*	NE	10*	NE	mg/m ³
Fluroxypyr	NE	NE	NE	NE	
Dicamba	NE	NE	NE	NE	
Solvent Naphtha (Petroleum), Heavy Aromatic**	NE	NE	NE	NE	
Other Ingredients	NE	NE	NE	NE	

*Based on adopted limit for 2,4-D

NE = Not Established

** Manufacturer recommended limit of 100 mg/m³ total hydrocarbon vapor.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Amber colored liquid
Odor:	Mild amine odor
Odor threshold:	No data available
pH:	5.5 - 8
Melting point/freezing point:	25° F (-4° C)
Initial boiling point and boiling range	No data available
Flash point:	>230° F (>110° C) Setflash
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Relative density:	1.169 @ 25° C
Solubility(ies):	Soluble
Partition coefficient: n-octanol/water:	No data available
Autoignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	51.6 cPs @ 25° C

Note: Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical Stability: This material is stable under normal handling and storage conditions.

Possibility of Hazardous Reactions: Will not occur.

Conditions to Avoid: Excessive heat. Do not store near heat or flame.

Incompatible Materials: Strong oxidizing agents: bases and acids.

Hazardous Decomposition Products: Under fire conditions may produce gases such as hydrogen chloride and oxides of carbon and nitrogen.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Eye contact, Skin contact

Symptoms of Exposure:

Eye Contact: Causes substantial but temporary eye damage. Vapors and mist may cause irritation.

Skin Contact: Slightly toxic and moderately irritating based on toxicity studies. Overexposure by skin absorption may cause symptoms similar to those for ingestion.

Ingestion: Slightly toxic if ingested based on toxicity studies. May cause headache, dizziness, nausea, vomiting, gastrointestinal irritation, weakness and central nervous system depression.

Inhalation: Low inhalation toxicity based on toxicity studies.

Delayed, immediate and chronic effects of exposure: Eye irritation

Toxicological Data:

Data from laboratory studies conducted on a similar, but not identical, formulation:

Oral: Rat LD₅₀: 1,750 mg/kg (female) (estimated based on mortalities for doses tested)

Dermal: Rat LD₅₀: >2,000 mg/kg

Inhalation: Rat 4-hr LC₅₀: >2.07 mg/L

Eye Irritation: Rabbit: Moderately irritating

Skin Irritation: Rabbit: Moderately irritating

Skin Sensitization: Not a contact sensitizer in guinea pigs following repeated skin exposure.

Subchronic (Target Organ) Effects: Repeated overexposure may cause effects to liver, kidneys, blood chemistry, testes and gross motor function. Rare cases of peripheral nerve damage have been reported, but extensive animal studies have failed to substantiate these observations, even at high doses for prolonged periods.

Carcinogenicity / Chronic Health Effects: Various animal cancer tests have shown no reliably positive association between 2,4-D exposure and cancer. Epidemiology studies on herbicide use have been both positive and negative with the majority being negative. The U.S. EPA has given 2,4-D and dicamba a Class D classification (not classifiable as to human carcinogenicity). Fluroxypyr did not cause cancer in laboratory animals.

Reproductive Toxicity: No impairment of reproductive function attributable to 2,4-D have been noted in laboratory animal studies. In animal studies, fluroxypyr has been shown not to interfere with reproduction. Dicamba did not interfere with fertility in reproduction studies in laboratory animals.

Developmental Toxicity: Studies in laboratory animals with 2,4-D have shown decreased fetal body weights and delayed development in the offspring at doses toxic to mother animals. Fluroxypyr did not cause birth defects in animals; other effects were seen in the fetus only at doses which caused toxic effects in the mother. Animal tests with dicamba have not demonstrated developmental effects.

Genotoxicity: There have been some positive and some negative studies, but the weight of evidence is that 2,4-D is not mutagenic. Animal tests with fluroxypyr and dicamba did not demonstrate mutagenic effects.

Assessment Carcinogenicity:

This product contains substances that are considered to be probable or suspected human carcinogens as follows:

Component	Regulatory Agency Listing As Carcinogen			
	ACGIH	IARC	NTP	OSHA
Chlorophenoxy Herbicides	No	2B	No	No
Dicamba	No	No	No	No
Fluroxypyr	No	No	No	No
Solvent Naphtha (Petroleum), Heavy Aromatic	No	No	No	No
Other Ingredients	No	No	No	No

12. ECOLOGICAL INFORMATION

Ecotoxicity:**Data on 2,4-D, Dimethylamine Salt:**

96-hour LC ₅₀ Bluegill:	524 mg/l	Bobwhite Quail Oral LD ₅₀ :	500 mg/kg
96-hour LC ₅₀ Rainbow Trout:	250 mg/l	Mallard Duck 8-day Dietary LC ₅₀ :	>5,620 ppm
48-hour EC ₅₀ Daphnia:	184 mg/l		

Data on Fluroxypyr 1-Methylheptyl Ester:

Fluroxypyr 1-Methylheptyl Ester is highly toxic to aquatic invertebrates on an acute basis (LC₅₀ or EC₅₀ is between 0.1 and 1 mg/L). Concentrations for fish were not determined because they exceed water solubility. Fluroxypyr 1-Methylheptyl Ester is highly insoluble in water. Fluroxypyr 1-Methylheptyl Ester is practically non-toxic to birds on an acute and dietary basis (LD₅₀ >2,000 mg/kg and LC₅₀ >5,000 ppm).

Data on Dicamba:

96-hour LC ₅₀ Bluegill:	135 mg/l	Bobwhite Quail 8-day Dietary LC ₅₀ :	>10,000 ppm
96-hour LC ₅₀ Rainbow Trout:	135 mg/l	Mallard Duck 8-day Dietary LC ₅₀ :	>10,000 ppm
48-hour EC ₅₀ Daphnia:	110 mg/l		

Environmental Fate:

In laboratory and field studies, 2,4-D DMA salt rapidly dissociated to parent acid in the environment. The typical half-life of the resultant 2,4-D acid ranged from a few days to a few weeks.

In laboratory and field studies, Fluroxypyr 1-Methylheptyl Ester rapidly de-esterified to parent acid in the environment. The typical soil half-life for fluroxypyr (acid and ester) ranged from one to four weeks. Microbial metabolism is the primary degradation mechanism in soil. The typical aquatic half-life ranged from 4 to 14 days.

Dicamba poorly binds to soil particles, is potentially mobile in the soil and highly soluble in water. Aerobic soil metabolism is the main degradative process for dicamba with a typical half-life of 2 weeks. Degradation is slower when low soil moisture limits microbe populations. In water, microbial degradation is the main route of dicamba dissipation. Aquatic hydrolysis, volatilization, adsorption to sediments, and bioconcentration are not expected to be significant.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Pesticide wastes are toxic. If container is damaged or if pesticide has leaked, contain all spillage. Absorb and clean up all spilled material with granules or sand. Place in a closed, labeled container for proper disposal. Improper disposal of excess pesticide, spray mixtures, or rinsate is a violation of Federal law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Handling and Disposal:

Nonrefillable Containers 5 Gallons or Less: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

Nonrefillable containers larger than 5 gallons: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. If recycling or recondition are not available, puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold

SAFETY DATA SHEET

ESCALADE® 2 HERBICIDE

container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable containers larger than 5 gallons: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Refillable Container: Refill this container with pesticide only. Do not reuse this container for any other purpose. Close all openings and replace all caps. Contact Nufarm's Customer Service Department at 1-800-345-3330 to arrange for return of the empty refillable container.

For Residential Use:

Container Handling: If empty - Do not reuse this container. Place in trash or offer for recycling if available. **If partly filled** - If product cannot be used as directed, call your local solid waste agency for disposal instructions. Never place unused product down any indoor (including toilet) or outdoor (including sewer) drain.

14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this SDS.

DOT

<30 gallons per completed package

Non Regulated

≥ 30 and < 119 gallons per complete package

UN 3082, Environmentally hazardous substance, liquid, n.o.s., (2,4-D Salt), 9, III, RQ

≥ 119 gallons per complete package

UN 3082, Environmentally hazardous substance, liquid, n.o.s., (2,4-D Salt), 9, III, RQ, Marine Pollutant

IMDG

UN 3082, Environmentally hazardous substance, liquid, n.o.s., (2,4-D Salt), 9, III, Marine Pollutant

IATA

UN 3082, Environmentally hazardous substance, liquid, n.o.s., (2,4-D Salt), 9, III, Marine Pollutant

15. REGULATORY INFORMATION

EPA FIFRA 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. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

WARNING. Causes substantial but temporary eye injury. Harmful if swallowed or absorbed through the skin. Do not get in eyes or on clothing. Avoid contact with skin.

U.S. FEDERAL REGULATIONS

TSCA Inventory: This product is exempted from TSCA because it is solely for FIFRA regulated use.

SARA Hazard Notification/Reporting:

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370.66):

Immediate and Delayed

Section 313 Toxic Chemical(s):

Dicamba (CAS No. 1918-00-9), 3.9 -4.3% by weight in product

Reportable Quantity (RQ) under U.S. CERCLA:

Dicamba (CAS No. 1918-00-9) 1,000 pounds

2,4-D (CAS No. 94-75-7) 100 pounds

RCRA Waste Code:

SAFETY DATA SHEET

ESCALADE® 2 HERBICIDE

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

State Information:

Other state regulations may apply. Check individual state requirements.

California Proposition 65: Not Listed.

16. OTHER INFORMATION

National Fire Protection Association (NFPA) Hazard Rating:

Rating for this product: Health: 2 Flammability: 1 Reactivity: 0

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Nufarm Americas Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Nufarm Americas Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS AND ALL SUCH WARRANTIES ARE HEREBY SPECIFICALLY DISCLAIMED.

Date of Issue: May 1, 2018

Supersedes: June 11, 2015

Escalade 2 is a registered trademark of Nufarm Americas Inc.

1. Identification

Product identifier 19-00-05

Other means of identification
 Product code
 Synonyms NONE

Recommended use Agricultural

Recommended restrictions Use in accordance with supplier's recommendations.

Manufacturer/Importer/Supplier/Distributor information
 Manufacturer/Supplier KIRBY AGRI, INC.
 PO BOX 6277
 LANCASTER, PA. 17601
 US.
customerservice@kirby-agri.com
 1.800.745-7524

Emergency For Chemical Emergency
 Call CHEMTREC day or night
 USA/Canada - 1.800.424.9300

2. Hazard(s) identification

Physical hazards Not classified.

Health 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 waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

3. Composition/information on ingredients

Mixtures

<u>Chemical Name</u>	<u>TLV/TWA</u>	<u>CAS number</u>	<u>% (by wt)</u>
Urea	10 mg/m ³ (dust) 5 mg/m ³ (resp)	57-13-6	0-98
Potassium Chloride	10 mg/m ³	7447-40-7	0-95
Limestone	20 mg/m ³		

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

This Safety Data Sheet is not a guarantee of product specification or NPK value(s). NPK content is on specified sales orders, customer invoices, or product specification sheets obtained from supplier.

4. First-aid measures

Inhalation Move to fresh air. Get medical attention if any discomfort continues.

Skin contact Wash with soap and water. Get medical attention if irritation develops or persists.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.

Ingestion Rinse mouth. Get medical attention if any discomfort continues.

Most important symptoms/effects, acute and delayed Eye contact: Symptoms can include irritation, redness, scratching of the cornea, and tearing.
Skin contact: Mild skin irritation.
Dust may irritate throat and respiratory system and cause coughing.

Indication of immediate medical attention and special treatment needed Treat symptomatically.

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media Water fog. Water spray. Carbon dioxide (CO₂). Foam.

Unsuitable extinguishing media None known.

Specific hazards arising from the chemical Irritating and toxic gases or fumes may be released during a fire.

Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing should be worn when fighting chemical fires. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

Fire fighting equipment/instructions Move containers from fire area if you can do it without risk. Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards Bulk material is non-combustible. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Avoid inhalation of dust and contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements or confined areas. Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. After removal flush contaminated area thoroughly with water.

Never return spills to original containers for re-use.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not contaminate water. Do not allow to enter drains, sewers or watercourses.

7. Handling and storage

Precautions for safe handling Keep away from all ignition sources including heat, sparks and flame. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Avoid inhalation of dust and contact with skin and eyes. Use only with adequate ventilation. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Keep container tightly closed. Store in a cool, dry, well-ventilated place. Store away from incompatible materials.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Dust (CAS -)	PEL	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Dust (CAS -)	TWA	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Dust (CAS -)	TWA	3 mg/m ³	Respirable particles.
		10 mg/m ³	Inhalable particles.

Biological limit values

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

Exposure guidelines

Follow standard monitoring procedures.

Appropriate engineering controls

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks. Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of exposure. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear approved chemical safety goggles. Wear a full-face respirator, if needed.

Skin protection

Hand protection

Wear protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.

Other

Normal work clothing (long sleeved shirts and long pants) is recommended.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Wear air supplied respiratory protection if exposure concentrations are unknown. In case of inadequate ventilation or risk of inhalation of dust, use suitable respiratory equipment with particle filter.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

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.

9. Physical and chemical properties

Appearance

Varies.

Physical state

Solid.

Form

Powder and granular.

Color

Varies.

Odor

Not available.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

Not available.

Flash point

Not available.

Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
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	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not applicable.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Chemical family	Varies

10. Stability and reactivity

Reactivity Chemical stability	The product is non-reactive under normal conditions of use, storage and transport.
Possibility of hazardous reactions	Stable under normal temperature conditions. Hazardous reactions do not occur.
Conditions to avoid	Heat. Extreme temperatures.
Incompatible materials	Strong oxidizing agents. Acids. Alkalis.
Hazardous decomposition products	Ammonia. Carbon oxides. Nitrogen oxides (NOx).

11. Toxicological information

Information on likely routes of exposure

Inhalation	Dust may irritate respiratory system.
Skin contact	May cause irritation through mechanical abrasion.
Eye contact	Dust may irritate the eyes.
Ingestion	Ingestion may cause irritation and malaise.
Symptoms related to the physical, chemical and toxicological characteristics	Eye contact: Symptoms can include irritation, redness, scratching of the cornea, and tearing. Skin contact: Mild skin irritation. Dust may irritate throat and respiratory system and cause coughing.

Information on toxicological effects

Acute toxicity	Not expected to be acutely toxic.
Skin corrosion/irritation	May cause irritation through mechanical abrasion.
Serious eye damage/eye irritation	May cause irritation through mechanical abrasion.
Respiratory or skin sensitization	
Respiratory sensitization	Based on available data, the classification criteria are not met.
Skin sensitization	Not a skin sensitizer.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Not classified.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity	Based on available data, the classification criteria are not met.
Specific target organ toxicity - single exposure	Inhalation of dusts may cause respiratory irritation.
Specific target organ toxicity - repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Not applicable.
Chronic effects	Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases. Prolonged exposure may cause chronic effects.
Further information	No other specific acute or chronic health impact noted.

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	Not expected to bioconcentrate or bioaccumulate.
Mobility in soil	This product is water soluble and may disperse in soil.
Other adverse effects	No data available.

13. Disposal considerations

Disposal instructions	Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations This product is not hazardous according to OSHA 29CFR 1910.1200. All components are listed on or exempt from the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

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.

US state regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

Not Listed.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	01-June-2015
Revision date	-
Version #	01
Further information	HMIS® is a registered trade and service mark of the NPCA.
HMIS® ratings	Health: 1 Flammability: 0 Physical hazard: 0

NFPA ratings



List of abbreviations

LD50: Lethal Dose, 50%.
LC50: Lethal Concentration, 50%.

References

NLM: Hazardous Substances Data Base
HSDB® - Hazardous Substances Data Bank
IARC Monographs. Overall Evaluation of Carcinogenicity
National Toxicology Program (NTP) Report on Carcinogens
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

Disclaimer

NOTICE: The information presented herein is based on data considered to be accurate as of the date of preparation of this Safety Data Sheet (SDS) and was prepared pursuant to Government regulation(s) that identify specific types of information to be provided. This SDS may not be used as a commercial specification sheet of manufacturer or seller, and no warranty or representation, expressed or implied, is made as to the accuracy or comprehensiveness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. Additional information may be needed to evaluate other uses of the product, including use of the product in combination with any materials or in any processes other than those specifically referenced. Information provided herein with respect to any hazards that may be associated with the product is not meant to suggest that use of the product in a given application will necessarily result in any exposure or risk to workers or the general public. No responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product. Purchasers and users assume all risk of use, storage and handling of the product in compliance with applicable federal, state and local laws and regulations. Purchasers and users of the product specifically should advise all of their employees, agents, contractors and customers who will use the product of this (M)SDS.