



Virex® Plus One-Step Disinfectant Cleaner & Deodorant

Revision: 2021-10-19

Version: 01.0

1. IDENTIFICATION

Product name: Virex® Plus
One-Step Disinfectant Cleaner & Deodorant

SDS #: MS0801839

Recommended use:

- Industrial/Institutional
- Disinfectant
- This product is intended to be diluted prior to use

Uses advised against: Uses other than those identified are not recommended

Manufacturer, importer, supplier:

US Headquarters
Diversey, Inc.
 P.O. Box 19747
 Charlotte, NC 28219-0747
 Phone: 1-888-352-2249
 SDS Internet Address: <https://sds.diversey.com>

Emergency telephone number: 1-800-851-7145; 1-651-917-6133 (Int'l)

2. HAZARDS IDENTIFICATION

Classification for the undiluted product

Acute oral toxicity	Category 4
Skin corrosion/irritation	Category 1B
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (repeated exposure)	Category 2
Flammability	Flammable Liquids, Category 4
Metal Corrosion:	Category 1

**Signal word:****Danger.****Hazard Statements**

COMBUSTIBLE LIQUID. CAUSES SEVERE SKIN BURNS AND SERIOUS EYE DAMAGE. HARMFUL IF SWALLOWED. MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE. MAY BE CORROSIVE TO METALS.

Precautionary Statements

Causes burns/ serious damage to mouth, throat and stomach. Keep away from flames and hot surfaces. No smoking. Keep container tightly closed. Keep only in original container. Avoid contact with eyes, skin and clothing. Wash affected areas thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves, protective clothing and eye or face protection. IF SWALLOWED: Rinse mouth. DO NOT induce vomiting unless directed to do so by medical personnel. Drink a cupful of milk or water. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water for at least 15 minutes. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing for at least 15 minutes. Immediately call a Poison Center (1-800-851-7145) or physician. Get medical attention or advice if you feel unwell. Absorb spillage to prevent material damage. Store in a well-ventilated place. Keep cool. Store locked up. Store in corrosive-resistant container with a resistant inner liner. Dispose of in accordance with all federal, state and local applicable regulations. SUPPLEMENTAL INFORMATION: Mix only with water. DO NOT MIX WITH BLEACH OR ANY OTHER PRODUCT OR CHEMICAL. Can react to release chlorine gas.

Health hazards not otherwise classified (HHNOC) - Not applicable

Physical hazards not otherwise classified (PHNOC) - Not applicable

Classification for the diluted product 1:64

This product, when diluted as stated on the label, is not classified as hazardous according to OSHA 29CFR 1910.1200 (HazCom 2012-GHS) and Canadian Hazardous Products Regulations (HPR) (WHMIS 2015-GHS).

Hazard and Precautionary Statements

None required.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Classified Ingredients

Ingredient(s)	CAS #	Weight %
Di-n-alkyl dimethyl ammonium chloride	68424-95-3	10 - 30%
n-alkyl dimethyl benzyl ammonium chloride	68424-85-1	5 - 10%
Alcohol, C9-C11, ethoxylated	68439-46-3	3 - 7%
Ethyl alcohol	64-17-5	1 - 5%
Tetrasodium salt of EDTA	64-02-8	1 - 5%

4. FIRST AID MEASURES

Undiluted Product:

Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes.

Skin: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water for at least 15 minutes.

Inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Ingestion: IF SWALLOWED: Rinse mouth. DO NOT induce vomiting unless directed to do so by medical personnel. Drink a cupful of milk or water.

Most Important Symptoms/Effects: No information available.

Immediate medical attention and special treatment needed Not applicable.

Diluted Product:

Eyes: Rinse with plenty of water.

Skin: No specific first aid measures are required

Inhalation: No specific first aid measures are required

Ingestion: IF SWALLOWED: Call a Poison Center (1-800-851-7145) or doctor/physician if you feel unwell.

5. FIRE-FIGHTING MEASURES

Specific methods:

No special methods required

Suitable extinguishing media:

Use dry chemical, CO₂, water spray or "alcohol" foam.

Specific hazards:

Although this product has a flash point below 200 Deg. F, it is an aqueous solution containing an alcohol and does not sustain combustion. Corrosive material (See sections 8 and 10).

Special protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Extinguishing media which must not be used for safety reasons: No information available.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Put on appropriate personal protective equipment (see Section 8.).

Environmental precautions

Clean-up methods - large spillage. Material is toxic to fish. Do not discharge into lakes, streams, ponds,

and clean-up methods:

or public water unless in accordance with an NPDES permit. Prevent product from entering drains. Water runoff can cause environmental damage. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. Use a water rinse for final clean-up.

7. HANDLING AND STORAGE

Handling: Can react to release hazardous gases. May vigorously react with acids resulting in spattering and excessive heat. Do not mix with other products or chemicals except as directed on the label. Mix only with water. COMBUSTIBLE LIQUID. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical, ventilating or lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Do not taste or swallow. Product residue may remain on/in empty containers. All precautions for handling the product must be used in handling the empty container and residue. Avoid breathing vapors or mists. Use only with adequate ventilation. Remove and wash contaminated clothing and footwear before re-use. Absorb spillage to prevent material damage. DO NOT MIX WITH BLEACH OR ANY OTHER PRODUCT OR CHEMICAL. Can react to release chlorine gas. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

Storage: Store in a well-ventilated place. Keep cool. Store locked up. Store in corrosive-resistant container with a resistant inner liner.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:

Ingredient(s)	CAS #	ACGIH	OSHA
Ethyl alcohol	64-17-5	1000 ppm (STEL)	1000 ppm (TWA) 1900 mg/m ³ (TWA)

Undiluted Product:**Engineering measures to reduce exposure:**

Good general ventilation should be sufficient to control airborne levels.

Personal Protective Equipment

It is the responsibility of the employer to determine the potential risk of exposure to hazardous chemicals for employees in the workplace in order to determine the necessity, selection, and use of personal protective equipment.

Eye protection:

Chemical-splash goggles.

Hand protection:

Chemical-resistant gloves.

Skin and body protection:

Protective footwear. Wear suitable protective clothing.

Respiratory protection:

In case of insufficient ventilation wear suitable respiratory equipment. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

Diluted Product:**Engineering measures to reduce exposure:**

Good general ventilation should be sufficient to control airborne levels.

Personal Protective Equipment

Eye protection:

No personal protective equipment required under normal use conditions.

Hand protection:

No personal protective equipment required under normal use conditions.

Skin and body protection:

No personal protective equipment required under normal use conditions.

Respiratory protection:

No personal protective equipment required under normal use conditions.

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Liquid

Evaporation Rate: No information available

Odor threshold: No information available.

Melting point/freezing point (°C): Not determined

Autoignition temperature: No information available

Solubility in other solvents: No information available

Density: 1.015 Kg/L

Bulk density: No information available

Flash point (°F): 142°F ≈ 61 °C

Viscosity: 20

VOC: 4.4 % *

Color: Hazy , Blue

Odor: Product specific

Boiling point/range: Not determined

Decomposition temperature: Not determined

Solubility: Completely Soluble

Relative Density (relative to water): 1.02

Vapor density: No information available

Vapor pressure: No information available.

Partition coefficient (n-octanol/water): No information available

Elemental Phosphorus: 0.00 % by wt.

pH: 12.75

Flammability (Solid or Gas): Not applicable
Sustained combustion: The product does not sustain combustion Not applicable
Explosion limits: - upper: Not determined - **lower:** Not determined

Corrosion to metals: Metal corrosive

Dilution pH:

≈ 10.3

Dilution Flash Point (°F): > 200 > 93.4

VOC % by wt. at use dilution: 0.07 %

* - Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94508

10. STABILITY AND REACTIVITY

Reactivity: Not Applicable
Stability: The product is stable
Possibility of hazardous reactions: May vigorously react with acids resulting in spattering and excessive heat.
Hazardous decomposition products: None reasonably foreseeable.
Materials to avoid: Acids. Strong acids. Do not mix with any other product or chemical unless specified in the use directions. Oxidizing agents. Anionic surfactant. Do not mix with chlorinated products (such as bleach).
Conditions to avoid: None known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Skin contact, Inhalation, Ingestion, Eye contact

Delayed, immediate, or chronic effects and symptoms from short and long-term exposure

Skin contact: Corrosive. Causes severe burns. Symptoms may include burns, blisters, redness and pain (which may be delayed).

Eye contact: Corrosive. Causes serious eye damage. Symptoms may include pain, burning sensation, redness, watering, blurred vision or loss of vision.

Ingestion: Causes burns/ serious damage to mouth, throat and stomach. Symptoms may include stomach pain and nausea. Symptoms may include vomiting, nausea, and/or feeling of general unwellness. Harmful if swallowed.

Inhalation: May cause irritation and corrosive effects to nose, throat and respiratory tract. Symptoms may include coughing and difficulty breathing.

Sensitization: No known effects.

Target Organs (SE): None known

Target Organs (RE): No information available

Carcinogen Listings: Ethyl alcohol is only classified as an IARC 1 carcinogen and California Prop 65 chemical when it is meant for ingestion in alcoholic beverages. We do not produce alcoholic beverages; therefore it is not considered a carcinogen in our products.

Numerical measures of toxicity

ATE - Oral (mg/kg): 1100
ATE - Dermal (mg/kg): >5000
ATE - Inhalatory, mists (mg/l): >20

12. ECOLOGICAL INFORMATION

Ecotoxicity: No information available.

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food, or feed by storage or disposal.

Waste from residues / unused products (undiluted product):

This product, as sold, if discarded or disposed, is a hazardous waste according to Federal regulations (40 CFR 261). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the waste solution meets RCRA criteria for hazardous waste. Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

Waste from residues / unused products (diluted product):

This product, when diluted as stated on this SDS, is not a hazardous waste according to Federal regulations (40 CFR 261). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the waste solution meets RCRA criteria for hazardous waste. Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

Pesticide Storage:

Refer to product label.

Pesticide Disposal:

Refer to product label.

Container Disposal:

Refer to product label.

RCRA Hazard Class (undiluted product): D002 Corrosive Waste.

RCRA Hazard Class (diluted product): Not Regulated.

Contaminated Packaging: Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT/TDG/IMDG: The information provided below is the full transportation classification for this product. This description does not account for the package size(s) of this product, that may fall under a quantity exception, according to the applicable transportation regulations. When shipping dangerous goods, please consult with your internal, certified hazardous materials specialist to determine if any exceptions can be applied to your shipment.

DOT (Ground) Bill of Lading Description: UN1903, DISINFECTANTS, LIQUID, CORROSIVE, N.O.S., (quaternary ammonium compounds, tetrasodium salt of EDTA), 8, II

IMDG (Ocean) Bill of Lading Description: UN1903, DISINFECTANTS, LIQUID, CORROSIVE, N.O.S., (quaternary ammonium compounds, tetrasodium salt of EDTA), 8, II, MARINE POLLUTANT (quaternary ammonium compounds)

15. REGULATORY INFORMATION

International Inventories at CAS# Level

TSCA

All components are listed or otherwise exempt

U.S. Regulations

EPA Reg. No. : 6836-349-70627

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.

DANGER: CORROSIVE. Causes irreversible eye damage and skin burns. Do not get in eyes, on skin or on clothing. Wear protective eyewear (goggles, face shield or safety glasses), protective (rubber or chemical resistant) gloves and protective clothing. Harmful if swallowed or absorbed through the skin. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

CERCLA/ SARA

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Canadian Regulations

Ingredient(s)	CAS #	NPRI
Ethyl alcohol	64-17-5	X

16. OTHER INFORMATION

NFPA (National Fire Protection Association)

Rating Scale: (Low Hazard) 0 - 4 (Extreme Hazard)

Health 3
Flammability 2
Instability 0
Special Hazards -

Diluted Product:

Health 0
Flammability 0
Instability 0
Special Hazards -

Revision: 2021-10-19

Version: 01.0

Reason for revision: Not applicable
Prepared by: North American Regulatory Affairs
Additional advice: • Does not contain an added fragrance

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Virex® Plus

One-Step Disinfectant Cleaner & Deodorizer

One-step quaternary disinfectant cleaner and deodorizer to clean and disinfect hard, nonporous surfaces in hospitals, nursing homes and other facilities.

Features & Benefits

- Kills HIV-1 and Influenza Type A in 1 minute
- Kills *Methicillin Resistant Staphylococcus aureus (MRSA)*, *Vancomycin Resistant Enterococcus faecalis (VRE)*, *Klebsiella pneumoniae Carbapenum-resistant (CRKP)*, *Acinetobacter baumannii*, and other pathogens in 3 minutes
- Kills Norovirus in 5 minutes at a 1:128 dilution (1 oz. per gallon)
- Cleans and disinfects finished floors without dulling gloss
- Bactericidal: Kills many pathogenic bacteria
- Inhibits the growth of mold and mildew and their odors. Fungicidal: Kills *Trichophyton interdigitale* (formerly *Trichophyton mentogrophytes*) (athlete's foot fungus) in 3 minutes
- Non-Food Contact Sanitizer in 15 seconds at 1:256
- Soft Surface Sanitizer in 5 minutes at 1:256

Applications

- This product can be used in multiple areas such as hospitals, health care facilities, medical offices, hotels (motels), public facilities, public restrooms, institutional facilities, retail businesses and schools (colleges and universities)
- Now with approved ESS instructions for use





Use instructions

Virex® Plus is a one-step, quaternary-based disinfectant cleaner concentrate for use on hard, nonporous surfaces such as floors, walls, glazed porcelain, and plastic surfaces in hospitals, nursing homes, schools, hotels, public areas and other facilities where cleaning and prevention of cross-contamination are critical.

Preparation of Disinfectant Use-Solution

- Mix ½ oz. per gallon of water (1:256). Use 1 oz. per gallon of water to kill Norovirus, Enterobacter aerogenes, and Serratia marcescens. Use 2 oz. per gallon of water to kill Adenovirus Type 5 and Type 7.

For Use as a One-Step Cleaner/Disinfectant

- Apply use-solution with a sprayer, thoroughly wetting surface.
- Let treated surface remain wet for contact time indicated on label or reference sheet.
- Wipe dry with a cloth, sponge, or mop, or allow to air dry.
- Prepare a fresh solution if the solution becomes visibly dirty or diluted.

For Use as a Cleaner and Deodorizer

- Apply use-solution using a sprayer.
- Air Dry, wipe surfaces to dry and remove any residue, or rinse with potable water as necessary.

For Use as a Non-Acid Toilet Bowl and Urinal Disinfectant/Cleaner

- Empty toilet bowl or urinal and apply use-solution to exposed surfaces and under the rim with a sprayer.
- Brush or swab thoroughly, allow to stand for contact time indicated on the label and flush.

To Control Mold and Mildew

- Follow disinfection instructions.
- Repeat treatment every seven days, or more often if new growth appears.

Dilutable Disinfectant Cleaner

- 1:256 dilution - Bactericidal, Virucidal, and Fungicidal, in 3 minutes. Kills HIV-1 and Influenza Type A in 1 minute. Some organisms require a 10 minute contact time and/or other dilutions. Please see product label or reference sheet for complete information.
- 1:128 dilution - Kills Norovirus in 5 minutes.

For use as a One-Step Cleaner and Disinfectant by Electrostatic Spraying:

Electrostatic spray applications is for bactericidal efficacy claims with a 3 minute contact time and 1:256 dilution and virucidal efficacy claims with a 5 minute contact time and 1:128 dilution. This application method is not to be used to treat surfaces for sanitization or fungicidal claims.

- Ensure bystanders and pets are not present in the room during application.
- Clean visibly dirty surfaces prior to spraying.
- Wear a N95 filtering facepiece respirator or half face respirator with a N95 filter and eye protection (goggles, face shield or safety glasses) when spraying.
- Select a spray nozzle that produces spray droplet particles with a volume median diameter (VMD) ≥ 80 µm.
- Place the electrostatic spray function in the ON position for electrostatic spray models that have the functionality to toggle ON/OFF.
- Hold the sprayer nozzle 12 inches away from the target surface. Starting at the highest point and working down to the lowest point, spray target surfaces using a smooth methodical “S” pattern. To avoid leaving gaps in sprayed surfaces, overlap previously treated surfaces when moving on subsequent sections.
- The target surface must remain visibly wet for 3 minutes. Re-apply product as necessary to keep surface visibly wet for the duration of the contact time. Wipe surfaces dry (or rinse) (or allow to air dry).
- Allow the treated room to remain unoccupied for 15 minutes before reentering.

Technical data	Virex® Plus
EPA Reg. No.	6836-349-70627
Color/Form	Blue, Liquid
pH	12.75 (Concentrate) 9.43 (Use Dilution 1:128) 8.03 (Use Dilution 1:256)
Scent	Characteristic of ingredients
Shelf Life	2 years

Product	Pack size	Dilution	Product code
Virex® Plus	2 x 84.5 oz. / 2.5 L J-Fill®	1:256	101102926
Virex® Plus	2 x 50.7 oz. / 1.5 L RTD®	1:128, 1:256	101102925

Safe handling

Please make sure your employees read and understand the product label and Safety Data Sheet before using this product. The label contains directions for use; and both the label and SDS contain hazard warnings, precautionary statements and first aid procedures. SDS are available online at www.diversey.com or by calling 888.352.2249. Improper use or dilution may result in damage to surfaces and may result in health and physical hazards that match those of the concentrate.

Reference Sheet



Virex® Plus

Virex Plus is a one-step Hospital use disinfectant, Bactericidal according to the current AOAC Germicidal Spray Test Method and Virucidal* according to the virucidal qualification modified in the presence of 250 ppm hard water plus 5% organic serum against:

1 MINUTE CONTACT TIME:

Viruses:

*HIV-1 [AIDS Virus]

*Influenza Type A / Hong Kong [Influenza]

3 MINUTE CONTACT TIME:

Bacteria:

Pseudomonas aeruginosa

Salmonella enterica

Staphylococcus aureus

Acinetobacter baumannii

Bordetella bronchiseptica

Bordetella pertussis

Campylobacter jejuni

Enterococcus faecalis

Enterococcus faecalis - Vancomycin resistant [VRE]

Escherichia coli

Escherichia coli O157:H7

Klebsiella pneumoniae

Klebsiella pneumoniae, Carbapenem-resistant

Listeria monocytogenes

Proteus vulgaris

Shigella dysenteriae

Shigella flexneri serotype 1B

Shigella sonnei

Staphylococcus aureus - Community Associated Methicillin-Resistant [CA-MRSA] (NRS384) (USA300)

Staphylococcus aureus - Methicillin-Resistant [MRSA]

Staphylococcus aureus - Vancomycin Intermediate Resistant – [VISA]

Streptococcus pyogenes

Vibrio cholerae

Yersinia enterocolitica

Viruses:

*Hepatitis B Virus [HBV]

*Hepatitis C Virus [HCV]

*Herpes Simplex Virus Type 1

*Herpes Simplex Virus Type 2

*Human Coronavirus

*Respiratory Syncytial Virus [RSV]

*Rotavirus

*Vaccinia [Pox Virus]

Animal Viruses:

Canine Distemper Virus

Newcastle's Disease Virus

Fungi:

Candida albicans

Trichophyton mentagrophytes

5 MINUTE CONTACT TIME:

Virus:

*Norwalk Virus – Norovirus - Feline Calicivirus at 1:128 dilution [1 oz. per gallon of water]

Animal Virus:

Feline Calicivirus at 1:128 dilution [1 oz. per gallon of water]

Kills Pandemic 2009 H1N1 influenza A virus.

Use this product to clean and disinfect finished floors. Cleans and disinfects without dulling gloss.

FOR USE ON FINISHED FLOORS: To limit gloss reduction use product at ½ oz. per gallon. Spray onto floor. Allow surface to remain wet for contact time indicated on the label. Wipe or allow to air dry. Do not use on floor finish at 2 oz. per gallon.

NON-ACID TOILET BOWL AND URINAL DISINFECTANT / CLEANER DIRECTIONS:

From Use Solution: Empty toilet bowl or urinal and apply a ½ oz. per gallon use-solution to exposed surfaces and under the rim with a sprayer. Use 1 oz. per gallon of water to kill Norovirus. Brush or swab thoroughly, allow to stand for contact time indicated on the label and flush.

Manufactured for: ©2014 Diversey, Inc.,
8310 16th Street, Sturtevant, WI 53177-1964

REF90190 (14/189)

NOTE: Read and check carefully all information, including the specifications in this box. The job will not be sent to print until final okay is received. All information contained on the label and in this box are the responsibility of the final approver.



Black

Brand: Sealed Air / Diversey

Product: Virex Plus

Item: Reference Sheet

Date Started: 06/26/14

Size: 8.5 x 11

Printing:

Printer:

Mfg.:

USIP: CR017705 VIREX PLUS INFECTION PREVENTION
HARD - NEW SKU

Tracking: REF90190

Replaces / Based On:

Coordinator: Jennifer Keszler

Designer: D. Reeves

Revision History:

06/26/14: Update/dr

06/27/14: Deleted parentheses/dr

07/08/14: Text changes/dr

Sent to printer:

PN A20362