



R2 Plus Hygienic Hard Surface Cleaner

Revision: 2023-04-12

Version: 01.1

1. IDENTIFICATION

Product name: R2 Plus Hygienic Hard Surface Cleaner
SDS #: MS0801496
Recommended use:

- Industrial/Institutional
- Disinfectant Cleaner

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

Manufacturer, importer, supplier:

US Headquarters Diversey, Inc. 1300 Altura Rd., Suite 125 Fort Mill, SC 29708 Phone: 1-888-352-2249 SDS Internet Address: https://sds.diversey.com	Canadian Headquarters Diversey Canada, Inc. 6150 Kennedy Road Unit 3 Mississauga, Ontario L5T 2J4 Phone: 1-800-668-7171
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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 3
Metal Corrosion:	Category 1



Signal word: Danger.

Hazard Statements

FLAMMABLE LIQUID AND VAPOR. 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 heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Keep only in original container. 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 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. In case of fire: Use CO₂, dry chemical, or foam to extinguish. Absorb spillage to prevent material damage. Store in a well-ventilated place. Keep cool. 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 1:256

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 %
Alcohol, C12-C15, ethoxylated	68131-39-5	7 - 13%
n-alkyl dimethyl benzyl ammonium chloride	68424-85-1	5 - 10%
Octyl decyl dimethyl ammonium chloride	32426-11-2	3 - 7%
Ethyl alcohol	64-17-5	1 - 5%
Tetrasodium salt of EDTA	64-02-8	1 - 5%
Dioctyl dimethyl ammonium chloride	5538-94-3	1 - 5%
Didecyl dimethyl ammonium chloride	7173-51-5	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. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

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:

Keep product and empty container away from heat and sources of ignition. Corrosive material (See sections 8 and 10). Although this product has a flash point below 200 Deg. F, it is an aqueous solution containing an alcohol and does not sustain combustion.

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 and clean-up methods:

Clean-up methods - large spillage: Material is toxic to fish. Do not discharge into lakes, streams, ponds, 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: FLAMMABLE LIQUID AND VAPOR. 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. Mix only with water. 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)	ACGIH	OSHA
Ethyl alcohol	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: 1.02 Kg/L

Bulk density: No information available

Flash point (°F): 129°F ≈ 54 °C

Viscosity: 0 mPa.s

VOC: 4.9 % *

Flammability (Solid or Gas): Not applicable

Sustained combustion: The product does not sustain combustion

Explosion limits: - upper: Not determined - lower: Not determined

Color: Clear , Dark , Green

Odor: Fresh Slightly perfumed

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: ≈ 7.25

Corrosion to metals: Metal corrosive

Dilution pH: ≈ 7
Dilution Flash Point (°F): $> 200^{\circ}\text{F} > 93.4$
VOC % by wt. at use dilution: 0.02 %

* - 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:	None known
Hazardous decomposition products:	None reasonably foreseeable.
Materials to avoid:	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

12. ECOLOGICAL INFORMATION

Ecotoxicity: No information available.

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

Mobility: No information available.

Other adverse effects No other adverse effects known.

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.

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

DSL

All components are listed or otherwise exempt

EPA Reg. No. : 1839-167-70627

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.

HAZARD TO HUMANS AND DOMESTIC ANIMALS. DANGER: KEEP OUT OF REACH OF CHILDREN. CORROSIVE. Causes irreversible eye damage and skin burns. May be fatal if absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear protective eyewear (goggles or face shield), clothing, and gloves when handling. Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Remove contaminated clothing and wash before reuse. PHYSICAL OR CHEMICAL HAZARDS: COMBUSTIBLE. Do not use or store near heat or open flame.

Ingredient(s)	CAS #	Weight %	CERCLA/SARA RQ (lbs)	Section 302 TPQ (lbs)	Section 313
Alcohol, C12-C15, ethoxylated	68131-39-5	7 - 13%			
n-alkyl dimethyl benzyl ammonium chloride	68424-85-1	5 - 10%			
Octyl decyl dimethyl ammonium chloride	32426-11-2	3 - 7%			
Ethyl alcohol	64-17-5	1 - 5%			
Tetrasodium salt of EDTA	64-02-8	1 - 5%			
Diocetyl dimethyl ammonium chloride	5538-94-3	1 - 5%			
Didecyl dimethyl ammonium chloride	7173-51-5	1 - 5%			

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: 2023-04-12

Version: 01.1

Reason for revision:

Not applicable

Prepared by:

North American Regulatory Affairs

Additional advice:

• Contains an added fragrance, see "Odor" heading in section 9 for specific description

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