




SECTION 1: IDENTIFICATION

- 1.1 Product identifier:** ES256H - HOSPITAL GRADE DISINFECTANT
- Other means of identification:**
Non-applicable
- 1.2 Recommended use of the chemical and restrictions on use:**
Relevant uses: Disinfectant cleaner
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Initial supplier identifier:**
Charlotte Products Ltd.
2060 Fisher Drive
K9J 6X6 Peterborough - Ontario - Canada
Phone: 705-740-2880 - Fax: 705-745-1239
www.charlotteproducts.com
- 1.4 Emergency phone number:** Infotrac 1-800-535-5053 (North America), 011-1-352-323-3500 (International)

SECTION 2: HAZARD IDENTIFICATION

- 2.1 Classification of the substance or mixture:**
WHMIS 2015:
Classification of this product has been carried out in accordance with Part 2 of Hazardous Products Regulations (SOR/2015-17 amended by SOR/2022-272)
Eye Dam. 1: Serious eye damage, Category 1, H318
Flam. Liq. 4: Flammable liquids, Category 4, H227
Skin Corr. 1B: Skin corrosion, Category 1B, H314
STOT RE 2: Specific target organ toxicity — Repeated exposure, Hazard Category 2 (Inhalation), H373
- 2.2 Label elements:**
WHMIS 2015:
Danger
- 
- Hazard statements:**
Flam. Liq. 4: H227 - Combustible liquid.
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Inhalation).
- Precautionary statements:**
P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280: Wear protective gloves/protective clothing/eye protection/protective footwear.
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501: Dispose of contents and / or their container according to the separated collection system used in your municipality.
- Substances that contribute to the classification**
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides; tetrasodium ethylene diamine tetraacetate; Didecyldimethylammonium chloride; Dimethyldioctylammonium chloride
- 2.3 Health and physical hazards not otherwise classified (HHNOC - PHNOC):**
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Substances:**

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Non-applicable

3.2 Mixtures:

Chemical description: Aqueous solution based on ammonium quaternary compounds, surfactants, colourants and perfume.

Components:

In accordance with Schedule I of the Hazardous Products Regulations (SOR/2015-17), the product contains:

| Identification | Chemical name/Classification | Concentration |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------|
| CAS: 68424-85-1 | Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides Acute Tox. 4: H302+H312; Skin Corr. 1B: H314 - Danger | 5 - <10 % |
| CAS: 64-02-8 | tetrasodium ethylene diamine tetraacetate Acute Tox. 4: H302+H332; Eye Dam. 1: H318; STOT RE 2: H373 - Danger | 1 - <5 % |
| CAS: 7173-51-5 | Didecyldimethylammonium chloride Acute Tox. 4: H302; Skin Corr. 1B: H314 - Danger | 1 - <5 % |
| CAS: 5538-94-3 | Dimethyldioctylammonium chloride Acute Tox. 4: H302; Skin Corr. 1B: H314 - Danger | 1 - <5 % |
| CAS: 34398-01-1 | Poly(oxy-1,2-ethanediyl), alpha-undecyl- omega -hydroxy- Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger | 1 - <5 % |
| CAS: 64-17-5 | ethanol Eye Irrit. 2: H319; Flam. Liq. 2: H225 - Danger | 1 - <5 % |

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

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

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Suitable extinguishing media:

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SECTION 5: FIRE-FIGHTING MEASURES (continued)

Combustible liquid. If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO₂).

Unsuitable extinguishing media:

IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Remove any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

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SECTION 7: HANDLING AND STORAGE (continued)

A.- Technical measures for storage

- Minimum Temp.: 5 °C
- Maximum Temp.: 30 °C
- Maximum time: 6 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace:

British Columbia - Occupational Health and Safety Regulation section 5.48 (Updated June 22, 2022):

| Identification | Occupational exposure limits | | |
|-------------------------|------------------------------|----------|--|
| ethanol CAS: 64-17-5 | TLV-TWA | | |
| | TLV-STEL | 1000 ppm | |

ALBERTA - Occupational Health and Safety Code:

| Identification | Occupational exposure limits | | |
|-------------------------|------------------------------|----------|------------------------|
| ethanol CAS: 64-17-5 | 8-hour | 1000 ppm | 1880 mg/m ³ |
| | 15-minute | | |

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment


In accordance with the order of importance to control professional exposure it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the professional exposure limits. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection


The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

| Pictogram | PPE | Remarks |
|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------------|
|  Mandatory hand protection | Chemical protective gloves (Material: Nitrile, Breakthrough time: > 480 min) | Replace the gloves at any sign of deterioration. |

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

| Pictogram | PPE | Remarks |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
|  Mandatory face protection | Panoramic glasses against splash/projections. | Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. |

E.- Bodily protection



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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

| Pictogram | PPE | Remarks |
|-----------|----------------------|-----------------------------------------------|
| | Work clothing | Replace before any evidence of deterioration. |
| | Anti-slip work shoes | Replace before any evidence of deterioration. |

F.- Additional emergency measures

| Emergency measure | Standards | Emergency measure | Standards |
|-------------------------------------------------------------------------------------------------------|-------------------------------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------|
|  Emergency shower | ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011 |  Eyewash stations | DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011 |

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatile organic compounds (VOC) according to Canadian Environmental Protection Act, 1999:

Volatile organic compounds: 2.71 % weight
V.O.C. density at 20 °C: Non-applicable

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C: Liquid
Appearance: Transparent
Colour: Blue
Odour: Citric
Odour threshold: Non-applicable *

Volatility:

Boiling point or initial boiling point and boiling range: 102 °C
Vapour pressure at 20 °C: 2407 Pa
Vapour pressure at 50 °C: 12621.64 Pa (12.62 kPa)
Evaporation rate at 20 °C: Non-applicable *

Product description:

Density at 20 °C: Non-applicable *
Relative density at 20 °C: 1.005 - 1.015
Dynamic viscosity at 20 °C: Non-applicable *
Kinematic viscosity at 20 °C: Non-applicable *
Kinematic viscosity at 40 °C: Non-applicable *
Concentration: Non-applicable *
pH: 6.8 - 7.8
Relative vapour density at 20 °C: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

| | |
|--------------------------------------------------------------------|------------------|
| Partition coefficient — n-octanol/water (logarithmic value) 20 °C: | Non-applicable * |
| Solubility in water at 20 °C: | Non-applicable * |
| Solubility properties: | Non-applicable * |
| Decomposition temperature: | Non-applicable * |
| Melting point/freezing point: | Non-applicable * |

Flammability:

| | |
|----------------------------|------------------|
| Flash Point: | 73 °C |
| Flammability (solid, gas): | Non-applicable * |
| Autoignition temperature: | 423 °C |
| Lower flammability limit: | Non-applicable * |
| Upper flammability limit: | Non-applicable * |

Particle characteristics:

| | |
|-----------------------------|----------------|
| Median equivalent diameter: | Non-applicable |
|-----------------------------|----------------|

9.2 Other information:

Information with regard to physical hazard classes:

| | |
|--------------------------------------------------------------|------------------|
| Explosive properties: | Non-applicable * |
| Oxidising properties: | Non-applicable * |
| Corrosive to metals: | Non-applicable * |
| Heat of combustion: | Non-applicable * |
| Aerosols-total percentage (by mass) of flammable components: | Non-applicable * |

Other safety characteristics:

| | |
|---------------------------|------------------|
| Surface tension at 20 °C: | Non-applicable * |
| Refraction index: | Non-applicable * |

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

| Shock and friction | Contact with air | Increase in temperature | Sunlight | Humidity |
|--------------------|------------------|-------------------------|---------------------|----------------|
| Not applicable | Not applicable | Risk of combustion | Avoid direct impact | Not applicable |

10.5 Incompatible materials:

| Acids | Water | Oxidising materials | Combustible materials | Others |
|--------------------|----------------|---------------------|-----------------------|-------------------------------|
| Avoid strong acids | Not applicable | Precaution | Not applicable | Avoid alkalis or strong bases |

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

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SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
IARC: ethanol (1)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Exposure in high concentration can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

| Identification | Acute toxicity | | Genus |
|------------------------------------------------------------------------------------------|------------------|-------------------|-------|
| | LD50 oral | LD50 dermal | |
| Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides CAS: 68424-85-1 | 344 mg/kg (ATEi) | 1100 mg/kg (ATEi) | Rat |
| | Non-applicable | | |
| | | | |

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

| Identification | Acute toxicity | | Genus |
|-----------------------------------------------------------------------------|-----------------|-------------------|--------|
| | | | |
| ethanol CAS: 64-17-5 | LD50 oral | 6200 mg/kg | Rat |
| | LD50 dermal | 20000 mg/kg | Rabbit |
| | LC50 inhalation | 124.7 mg/L (4 h) | Rat |
| tetrasodium ethylene diamine tetraacetate CAS: 64-02-8 | LD50 oral | 1913 mg/kg (ATEi) | Rat |
| | LD50 dermal | Non-applicable | |
| | LC50 inhalation | 11 mg/L (ATEi) | |
| Poly(oxy-1,2-ethanediyl), alpha-undecyl- omega -hydroxy- CAS: 34398-01-1 | LD50 oral | 500 mg/kg (ATEi) | |
| | LD50 dermal | Non-applicable | |
| | LC50 inhalation | Non-applicable | |
| Didecyltrimethylammonium chloride CAS: 7173-51-5 | LD50 oral | 500 mg/kg (ATEi) | Rat |
| | LD50 dermal | Non-applicable | |
| | LC50 inhalation | Non-applicable | |
| Dimethyldioctylammonium chloride CAS: 5538-94-3 | LD50 oral | 500 mg/kg (ATEi) | |
| | LD50 dermal | Non-applicable | |
| | LC50 inhalation | Non-applicable | |

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

12.1 Ecotoxicity (aquatic and terrestrial, where available):

Acute toxicity:

| Identification | Concentration | | Species | Genus |
|------------------------------------------------------------------------------------------|---------------|-------------------|------------------------|------------|
| | | | | |
| Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides CAS: 68424-85-1 | LC50 | 0.28 mg/L (96 h) | Pimephales promelas | Fish |
| | EC50 | Non-applicable | | |
| | EC50 | Non-applicable | | |
| tetrasodium ethylene diamine tetraacetate CAS: 64-02-8 | LC50 | 121 mg/L (96 h) | Lepomis macrochirus | Fish |
| | EC50 | 140 mg/L (48 h) | Daphnia magna | Crustacean |
| | EC50 | Non-applicable | | |
| ethanol CAS: 64-17-5 | LC50 | 11000 mg/L (96 h) | Alburnus alburnus | Fish |
| | EC50 | 9268 mg/L (48 h) | Daphnia magna | Crustacean |
| | EC50 | 1450 mg/L (192 h) | Microcystis aeruginosa | Algae |

Chronic toxicity:

| Identification | Concentration | | Species | Genus |
|-----------------------------------------------------------|---------------|----------------|--------------------|------------|
| | | | | |
| tetrasodium ethylene diamine tetraacetate CAS: 64-02-8 | NOEC | 25.7 mg/L | Danio rerio | Fish |
| | NOEC | 25 mg/L | Daphnia magna | Crustacean |
| Didecyltrimethylammonium chloride CAS: 7173-51-5 | NOEC | Non-applicable | | |
| | NOEC | 0.021 mg/L | Daphnia magna | Crustacean |
| ethanol CAS: 64-17-5 | NOEC | 250 mg/L | Danio rerio | Fish |
| | NOEC | 2 mg/L | Ceriodaphnia dubia | Crustacean |

12.2 Persistence and degradability:

Substance-specific information:

| Identification | Degradability | | Biodegradability | |
|-----------------------------------------------------|---------------|----------------|------------------|----------|
| | | | | |
| Didecyltrimethylammonium chloride CAS: 7173-51-5 | BOD5 | Non-applicable | Concentration | 100 mg/L |
| | COD | Non-applicable | Period | 28 days |
| | BOD5/COD | Non-applicable | % Biodegradable | 0 % |
| ethanol CAS: 64-17-5 | BOD5 | Non-applicable | Concentration | 100 mg/L |
| | COD | Non-applicable | Period | 14 days |
| | BOD5/COD | Non-applicable | % Biodegradable | 89 % |

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SECTION 12: ECOLOGICAL INFORMATION (continued)

12.3 Bioaccumulative potential:

Substance-specific information:

| Identification | Bioaccumulation potential | |
|----------------------------------------------------|-----------------------------------------------------------|----------|
| | tetrasodium ethylene diamine tetraacetate CAS: 64-02-8 | BCF |
| | Pow Log | -13 |
| | Potential | Low |
| Didecyldimethylammonium chloride CAS: 7173-51-5 | BCF | 81 |
| | Pow Log | 4.66 |
| | Potential | Moderate |
| ethanol CAS: 64-17-5 | BCF | 3 |
| | Pow Log | -0.31 |
| | Potential | Low |

12.4 Mobility in soil:

| Identification | Absorption/desorption | | Volatility | |
|----------------------------------------------------|-----------------------------------------------------------|----------------------|------------|--------------------------------|
| | tetrasodium ethylene diamine tetraacetate CAS: 64-02-8 | Koc | 1046 | Henry |
| | Conclusion | Low | Dry soil | No |
| | Surface tension | Non-applicable | Moist soil | No |
| Didecyldimethylammonium chloride CAS: 7173-51-5 | Koc | 440000 | Henry | Non-applicable |
| | Conclusion | Immobile | Dry soil | Non-applicable |
| | Surface tension | Non-applicable | Moist soil | Non-applicable |
| ethanol CAS: 64-17-5 | Koc | 1 | Henry | 4.61E-1 Pa·m ³ /mol |
| | Conclusion | Very High | Dry soil | Yes |
| | Surface tension | 2.339E-2 N/m (25 °C) | Moist soil | Yes |

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-hazardous residue. Waste should not be disposed of to drains. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

Canadian Environmental Protection Act, 1999

SECTION 14: TRANSPORT INFORMATION

This product is not regulated for transport.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

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SECTION 15: REGULATORY INFORMATION (continued)

- Domestic Substances List (DSL): *Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides (68424-85-1) ; tetrasodium ethylene diamine tetraacetate (64-02-8) ; Didecyldimethylammonium chloride (7173-51-5) ; Dimethyldioctylammonium chloride (5538-94-3) ; Poly(oxy-1,2-ethanediyl), alpha-undecyl- omega -hydroxy- (34398-01-1) ; ethanol (64-17-5)*

- Non-Domestic Substances List (NDSL): Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

Canadian Environmental Protection Act, 1999

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Part 4 and Schedule I of the Hazardous Products Regulations (SOR/2015-17), amended by SOR/2020-38 and SOR/2022-272.

Texts of the legislative phrases mentioned in section 2:

H318: Causes serious eye damage.

H373: May cause damage to organs through prolonged or repeated exposure (Inhalation).

H227: Combustible liquid.

H314: Causes severe skin burns and eye damage.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

WHMIS 2015:

Acute Tox. 4: H302 - Harmful if swallowed.

Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin.

Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled.

Eye Dam. 1: H318 - Causes serious eye damage.

Eye Irrit. 2: H319 - Causes serious eye irritation.

Flam. Liq. 2: H225 - Highly flammable liquid and vapour.

Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.

STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Inhalation).

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://whmis.org/>

Abbreviations and acronyms:

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand BOD5: 5-day biochemical oxygen demand

BCF: Bioconcentration factor LD50: Lethal Dose 50 CL50: Lethal Concentration 50

EC50: Effective concentration 50

Log-POW: Octanol-water partition coefficient

Koc: Partition coefficient of organic carbon

IARC: International Agency for Research on Cancer

Date of compilation: 2023-09-14

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The information contained in this safety data sheet is based on sources, technical knowledge and current legislation, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

END OF SAFETY DATA SHEET