



# Safety Data Sheet

Canada

## Section 1. Identification

Product name

**HiScreen™ CM Sepharose™ HP**

Catalogue Number

29739769



Product type

Liquid.

### Relevant identified uses of the substance or mixture and uses advised against

#### Identified uses

Laboratory chemicals  
Liquid chromatography.  
Scientific research and development

Consumer use

-

#### Supplier

Cytiva  
Amersham Place  
Little Chalfont  
Buckinghamshire  
HP7 9NA United Kingdom  
+44 1494 508000

#### Importer

Cytiva Canada  
250 Howe Street, Suite 1400-C  
Vancouver, British Columbia, Canada, V6C 3S7  
1 800 463 5800

### In case of emergency

INFOTRAC

Outside of the United States, call 24 Hour number: 001-352-323-3500 (Call Collect)

In the United States, call 24 Hour number: 1-800-535-5053

## Section 2. Hazard identification

Classification of the substance  
or mixture

FLAMMABLE LIQUIDS - Category 3  
EYE IRRITATION - Category 2B

### GHS label elements

#### Hazard pictograms



#### Signal word

Warning

#### Hazard statements

Flammable liquid and vapor.  
Causes eye irritation.

### Precautionary statements

#### Prevention

Wear protective gloves: 1 - 4 hours (breakthrough time): butyl rubber, neoprene. Wear protective clothing: Recommended: lab coat. Wear eye or face protection: Recommended: safety glasses with side-shields. Wear hearing protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wash thoroughly after handling.

#### Response

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

#### Storage

Not applicable.



|                                    |   |
|------------------------------------|---|
| <b>Disposal</b>                    | Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| <b>Supplemental label elements</b> | Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 50%          |

### Section 3. Composition/information on ingredients

|                                      |                |
|--------------------------------------|----------------|
| <b>Substance/mixture</b>             | Mixture        |
| <b>Other means of identification</b> | Not available. |

| <b>Ingredient name</b> | <b>Synonyms</b>  | <b>% (w/w)</b> | <b>CAS number</b> |
|------------------------|--|----------------|-------------------|
| Sepharose              | Agarose gel beads; Sepharose; (2S,3R,4S,5R,6R)-2-[[[(1S,3S,4S,5S,8R)-3-[(2S,3R,4S,5S,6R)-2-[[[(1S,3R,4S,5S,8R)-3,4-dihydroxy-2,6-dioxabicyclo[3.2.1]octan-8-yl]oxy]-3,5-dihydroxy-6-(hydroxymethyl)oxan-4-yl]oxy-4-hydroxy-2,6-dioxabicyclo[3.2.1]octan-8-yl]oxy]-6-(hydroxymethyl)oxane-3,4,5-triol   | ≥45 - ≤70      | CAS: 9012-36-6    |
| Ethyl alcohol          | ethyl alcohol; ALCOHOL; Ethyl alcohol (Ethanol); EtOH; Grain alcohol; Cologne spirit; undenatured ethyl alcohol, of an alcoholic strength by volume of 80 % or more and containing up to 20 % activated carbon; aqueous solution, containing by weight - 25 % or more, but not more than 35 % of a copolymer of vinyl caprolactam, vinyl pyrrolidone, N,N-dimethylaminopropyl methacrylamide and 3-(methacryloylamino) propyl lauryldimethylammonium chloride, - 10 % or more, but not more than 16 % of ethanol whether or not denatured with tert-butyl alcohol and/or denatonium benzoate; Blend, consisting of ethyl alcohol, ethyl acetate and aldehydes, higher alcohols and water; blend, consisting of ethyl alcohol, ethyl acetate and water; Denatured Alcohol | ≥10 - ≤30      | CAS: 64-17-5      |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

### Section 4. First-aid measures

#### Description of necessary first aid measures

|                     |  |
|---------------------|--|
| <b>Eye contact</b>  | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.  |
| <b>Inhalation</b>   | Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.   |
| <b>Skin contact</b> | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.  |
| <b>Ingestion</b>    | Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |

#### Most important symptoms/effects, acute and delayed

##### Potential acute health effects

|                    |                        |
|--------------------|------------------------|
| <b>Eye contact</b> | Causes eye irritation. |
|--------------------|------------------------|



|                     |   |
|---------------------|---|
| <b>Inhalation</b>   | No known significant effects or critical hazards. |
| <b>Skin contact</b> | No known significant effects or critical hazards. |
| <b>Ingestion</b>    | No known significant effects or critical hazards. |

**Over-exposure signs/symptoms**

|                     |  |
|---------------------|--|
| <b>Eye contact</b>  | Adverse symptoms may include the following:<br>irritation<br>watering<br>redness |
| <b>Inhalation</b>   | No specific data.  |
| <b>Skin contact</b> | No specific data.  |
| <b>Ingestion</b>    | No specific data.  |

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

|                                   |  |
|-----------------------------------|--|
| <b>Notes to physician</b>         | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.  |
| <b>Specific treatments</b>        | No specific treatment.   |
| <b>Protection of first-aiders</b> | No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. |

See toxicological information (Section 11)

**Section 5. Fire-fighting measures****Extinguishing media**

|                                       |  |
|---------------------------------------|--|
| <b>Suitable extinguishing media</b>   | Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam. |
| <b>Unsuitable extinguishing media</b> | Do not use water jet.  |

**Specific hazards arising from the chemical** Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

**Hazardous thermal decomposition products** Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide

**Special protective actions for fire-fighters** Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters** Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Section 6. Accidental release measures****Personal precautions, protective equipment and emergency procedures**

|                                    |  |
|------------------------------------|--|
| <b>For non-emergency personnel</b> | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flames, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| <b>For emergency responders</b>    | If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".  |

**Environmental precautions** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Methods and materials for containment and cleaning up**

|                    |   |
|--------------------|---|
| <b>Small spill</b> | Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |
|--------------------|---|



|                    |  |
|--------------------|--|
| <b>Large spill</b> | Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. |
|--------------------|--|

Section 7. Handling and storage

**Precautions for safe handling**

|   |   |
|---|---|
| <b>Protective measures</b>  | Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| <b>Advice on general occupational hygiene</b>                       | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.   |
| <b>Conditions for safe storage, including any incompatibilities</b> | Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.   |

Section 8. Exposure controls/personal protection

**Control parameters**

**Occupational exposure limits**

|                        |  |
|------------------------|--|
| <b>Ingredient name</b> | <b>Exposure limits</b>   |
| Ethyl alcohol          | <b>CA Saskatchewan Provincial (Canada, 4/2021)</b><br>STEL 15 minutes: 1250 ppm.<br>TWA 8 hours: 1000 ppm.<br><b>CA British Columbia Provincial (Canada, 9/2024)</b><br>STEL 15 minutes: 1000 ppm.<br><b>CA Ontario Provincial (Canada, 6/2019)</b><br>STEL 15 minutes: 1000 ppm.<br><b>CA Quebec Provincial (Canada, 2/2024) C3.</b><br>STEV 15 minutes: 1000 ppm.<br><b>CA Alberta Provincial (Canada, 3/2023)</b><br>OEL 8 hours: 1000 ppm.<br>OEL 8 hours: 1880 mg/m³. |

**Biological exposure indices**

No exposure indices known.

|   |   |
|---|---|
| <b>Appropriate engineering controls</b> | Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment. |
| <b>Environmental exposure controls</b>  | Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.  |

**Individual protection measures**

|                         |   |
|-------------------------|---|
| <b>Hygiene measures</b> | Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. |
|-------------------------|---|



|                               |  |
|-------------------------------|--|
| <b>Eye/face protection</b>    | Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. Recommended: safety glasses with side-shields   |
| <b>Skin protection</b>        |  |
| <b>Hand protection</b>        | Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. 1 - 4 hours (breakthrough time): butyl rubber, neoprene |
| <b>Body protection</b>        | Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Recommended: lab coat  |
| <b>Other skin protection</b>  | Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.  |
| <b>Respiratory protection</b> | Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: A respirator is not needed under normal and intended conditions of product use.  |

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

|   |   |
|---|---|
| <b>Physical state</b>   | Liquid.                                   |
| <b>Color</b>  | White. White to yellowish.                |
| <b>Odor</b>   | Alcohol-like. [Slight]                    |
| <b>Odor threshold</b>   | 180 ppm                                   |
| <b>pH</b>   | 5.5 to 8.5 [Conc. (% w/w): 100%]          |
| <b>Melting point/freezing point</b>                             | Not available.                            |
| <b>Boiling point or initial boiling point and boiling range</b> | Not available.                            |
| <b>Flash point</b>  | Closed cup: 38 to 43°C (100.4 to 109.4°F) |
| <b>Burning time</b>   | Not applicable.                           |
| <b>Burning rate</b>   | Not applicable.                           |
| <b>Evaporation rate</b>   | Not available.                            |
| <b>Flammability</b>   | Not available.                            |
| <b>Lower and upper explosive (flammable) limits</b>             | Not available.                            |
| <b>Vapor pressure</b>   | Not available.                            |

| Ingredient name | Vapor Pressure at 20°C |     |        | Vapor pressure at 50°C |     |        |
|-----------------|------------------------|-----|--------|------------------------|-----|--------|
|                 | mm Hg                  | kPa | Method | mm Hg                  | kPa | Method |
| ethanol         | 42.94865               | 5.7 |        |                        |     |        |
| water           | 17.5                   | 2.3 |        |                        |     |        |
| Agarose         | 0                      | 0   |        |                        |     |        |

|                               |                |
|-------------------------------|----------------|
| <b>Relative vapor density</b> | Not available. |
| <b>Relative density</b>       | Not available. |

Solubility(ies)

| Media      | Result         |
|------------|----------------|
| cold water | Easily soluble |
| hot water  | Easily soluble |

|  |                 |
|--|-----------------|
| <b>Solubility in water</b>                     | Not available.  |
| <b>Miscible with water</b>                     | Yes.            |
| <b>Partition coefficient: n-octanol/ water</b> | Not applicable. |
| <b>Auto-ignition temperature</b>               | Not available.  |

| Ingredient name | °C  | °F  | Method    |
|-----------------|-----|-----|-----------|
| ethanol         | 455 | 851 | DIN 51794 |



|                                  |  |
|----------------------------------|--|
| <b>Decomposition temperature</b> | Not available.   |
| <b>SADT</b>                      | Not available.   |
| <b>Viscosity</b>                 | Dynamic (room temperature): Not available.<br>Kinematic (room temperature): Not available.<br>Kinematic (40°C (104°F)): Not available. |
| <b>Flow time (ISO 2431)</b>      | Not available.   |
| <b>Particle characteristics</b>  |  |
| <b>Median particle size</b>      | Not applicable.  |

Section 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactivity</b>                         | No specific test data related to reactivity available for this product or its ingredients.  |
| <b>Chemical stability</b>                 | The product is stable.  |
| <b>Possibility of hazardous reactions</b> | Under normal conditions of storage and use, hazardous reactions will not occur.   |
| <b>Conditions to avoid</b>                | Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. |
| <b>Incompatible materials</b>             | Reactive or incompatible with the following materials:<br>oxidizing materials   |
| <b>Hazardous decomposition products</b>   | Under normal conditions of storage and use, hazardous decomposition products should not be produced.  |

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

|                                     |  |
|-------------------------------------|--|
| <b>Product/ingredient name</b>      | <b>Result</b>  |
| Ethyl alcohol                       | <b>Rat - Oral - LD50</b><br>7060 mg/kg<br><u>Toxic effects:</u> Lung, Thorax, or Respiration - Other changes<br><b>Rat - Inhalation - LC50 Vapor</b><br>124700 mg/m³ [4 hours] |
| <b>Conclusion/Summary [Product]</b> | Not available.   |

Skin corrosion/irritation

|   |   |
|---|---|
| Not available.                          |   |
| <b>Conclusion/Summary<br/>[Product]</b> | Repeated exposure may cause skin dryness or cracking. |

Serious eye damage/eye irritation

|   |                |
|---|----------------|
| Not available.                          |                |
| <b>Conclusion/Summary<br/>[Product]</b> | Not available. |

Respiratory corrosion/irritation

|   |                |
|---|----------------|
| Not available.                          |                |
| <b>Conclusion/Summary<br/>[Product]</b> | Not available. |

Respiratory or skin sensitization

|                                 |                |
|---------------------------------|----------------|
| Not available.                  |                |
| Skin                            |                |
| Conclusion/Summary<br>[Product] | Not available. |



**Respiratory**

**Conclusion/Summary  
[Product]** Not available.

**Germ cell mutagenicity**

Not available.

**Conclusion/Summary  
[Product]** Not available.

**Carcinogenicity**

Not available.

**Conclusion/Summary  
[Product]** Not available.

**Classification**

| Product/ingredient name | IARC | NTP | ACGIH |
|-------------------------|------|-----|-------|
| Ethyl alcohol           | -    | -   | A3    |

**Reproductive toxicity**

Not available.

**Conclusion/Summary  
[Product]** Not available.

**Specific target organ toxicity (single exposure)**

Not available.

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

Not available.

**Information on the likely routes of exposure** Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

**Potential acute health effects**

|                     |   |
|---------------------|---|
| <b>Eye contact</b>  | Causes eye irritation.                            |
| <b>Inhalation</b>   | No known significant effects or critical hazards. |
| <b>Skin contact</b> | No known significant effects or critical hazards. |
| <b>Ingestion</b>    | No known significant effects or critical hazards. |

**Symptoms related to the physical, chemical and toxicological characteristics**

|                     |  |
|---------------------|--|
| <b>Eye contact</b>  | Adverse symptoms may include the following:<br>irritation<br>watering<br>redness |
| <b>Inhalation</b>   | No specific data.  |
| <b>Skin contact</b> | No specific data.  |
| <b>Ingestion</b>    | No specific data.  |

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Short term exposure**

**Potential immediate effects** Not available.



|  |   |                |                          |                            |                                     |
|--|---|----------------|--------------------------|----------------------------|-------------------------------------|
| Potential delayed effects  | Not available.                                    |                |                          |                            |                                     |
| <b><u>Long term exposure</u></b>   |   |                |                          |                            |                                     |
| Potential immediate effects  | Not available.                                    |                |                          |                            |                                     |
| Potential delayed effects  | Not available.                                    |                |                          |                            |                                     |
| <b><u>Potential chronic health effects</u></b>   |   |                |                          |                            |                                     |
| Not available.   |   |                |                          |                            |                                     |
| Conclusion/Summary [Product]   | Not available.                                    |                |                          |                            |                                     |
| General  | No known significant effects or critical hazards. |                |                          |                            |                                     |
| Carcinogenicity  | No known significant effects or critical hazards. |                |                          |                            |                                     |
| Mutagenicity   | No known significant effects or critical hazards. |                |                          |                            |                                     |
| Reproductive toxicity  | No known significant effects or critical hazards. |                |                          |                            |                                     |
| <b><u>Numerical measures of toxicity</u></b>   |   |                |                          |                            |                                     |
| <b><u>Acute toxicity estimates</u></b>   |   |                |                          |                            |                                     |
| Product/ingredient name  | Oral (mg/kg)                                      | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
| Ethyl alcohol  | 7000  | N/A            | N/A                      | 124.7                      | N/A                                 |
| <b><u>Other information</u></b>  |   |                |                          |                            |                                     |
| Adverse symptoms include the following: kidney abnormalities, liver abnormalities<br>Adverse symptoms may include the following: central nervous system depression |   |                |                          |                            |                                     |

Section 12. Ecological information

Toxicity

|   |                          |   |  |                         |
|---|--------------------------|---|--|-------------------------|
| <b>Product/ingredient name</b>              |                          | <b>Result</b>   |  |                         |
| Ethyl alcohol                               |                          | <b>Acute - LC50 - Marine water</b><br>Fish - Bleak - <i>Alburnus alburnus</i><br><u>Size</u> : 8 to 10 cm<br>11 g/l [96 hours]<br><u>Effect</u> : Mortality<br><b>Chronic - NOEC - Marine water</b><br>Algae - Green algae - <i>Ulva pertusa</i><br>4.995 mg/l [96 hours]<br><u>Effect</u> : Reproduction<br><b>Acute - EC50 - Fresh water</b><br>Crustaceans - Ostracod - <i>Cypris subglobosa</i><br>1074 mg/l [48 hours]<br><u>Effect</u> : Intoxication<br><b>Chronic - NOEC - Fresh water</b><br>Daphnia - Water flea - <i>Daphnia magna</i> - Neonate<br><u>Age</u> : <24 hours<br>100 µl/l [21 days]<br><u>Effect</u> : Mortality<br><b>Acute - EC50 - Marine water</b><br>Algae - Green algae - <i>Ulva pertusa</i><br><u>Size</u> : 9.4 mm<br>3306 mg/l [96 hours]<br><u>Effect</u> : Reproduction |  |                         |
| <b>Conclusion/Summary [Product]</b>         | Not available.           |   |  |                         |
| <b><u>Persistence and degradability</u></b> |                          |   |  |                         |
| <b>Product/ingredient name</b>              |                          | <b>Result</b>   |  |                         |
| Ethyl alcohol                               |                          | <b>Aerobic</b><br>100% [20 days] - Readily  |  |                         |
| <b>Conclusion/Summary [Product]</b>         | Not available.           |   |  |                         |
| <b>Product/ingredient name</b>              | <b>Aquatic half-life</b> | <b>Photolysis</b>   |  | <b>Biodegradability</b> |
| Ethyl alcohol                               | -                        | -   |  | Readily                 |





Bioaccumulative potential

| Product/ingredient name | LogP <sub>ow</sub> | BCF  | Potential |
|-------------------------|--------------------|------|-----------|
| Ethyl alcohol           | -0.35              | 0.66 | Low       |

Mobility in soil

|                                  |                |
|----------------------------------|----------------|
| Soil/Water partition coefficient | Not available. |
|----------------------------------|----------------|

|                       |   |
|-----------------------|---|
| Other adverse effects | No known significant effects or critical hazards. |
|-----------------------|---|

Section 13. Disposal considerations

|                  |   |
|------------------|---|
| Disposal methods | The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. |
|------------------|---|

Section 14. Transport information

|                            | TDG Classification | DOT Classification | ADR/RID        | IMDG           | IATA   |
|----------------------------|--------------------|--------------------|----------------|----------------|--|
| UN number                  | Not regulated.     | Not regulated.     | Not regulated. | Not regulated. | Not regulated.   |
| UN proper shipping name    | -                  | -                  | -              | -              | -  |
| Transport hazard class(es) | -                  | -                  | -              | -              | -  |
| Packing group              | -                  | -                  | -              | -              | -  |
| Environmental hazards      | No.                | No.                | No.            | No.            | No.  |
| Additional information     | -                  | -                  | -              | -              | <b>Remarks</b> IATA Special Provision A 58 - Aqueous solutions containing 24% or less alcohol by volume is not subject to these regulations. |

|                              |   |
|------------------------------|---|
| Special precautions for user | <b>Transport within user's premises:</b> always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage. |
|------------------------------|---|

|  |                |
|--|----------------|
| Transport in bulk according to IMO instruments | Not available. |
|--|----------------|



## Section 15. Regulatory information

### Canadian lists

|                              |  |
|------------------------------|--|
| <b>Canadian NPRI</b>         | The following components are listed: ethanol |
| <b>CEPA Toxic substances</b> | None of the components are listed.           |

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

|                      |  |
|----------------------|--|
| <b>Canada</b>        | All components are listed or exempted. |
| <b>United States</b> | Not determined.                        |

## Section 16. Other information

### History

|                                       |                       |
|---------------------------------------|-----------------------|
| <b>Date of printing</b>               | 9/15/2025             |
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|                                       | sds_author@cytiva.com |

### Key to abbreviations

ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
HPR = Hazardous Products Regulations  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
N/A = Not available  
UN = United Nations

### Procedure used to derive the classification

| Classification                 | Justification         |
|--------------------------------|-----------------------|
| FLAMMABLE LIQUIDS - Category 3 | On basis of test data |
| EYE IRRITATION - Category 2B   | Calculation method    |

### References

Not available.



Indicates information that has changed from previously issued version.

### Notice to reader

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