

# **SAFETY DATA SHEET**

**United States** 

Section 1. Identification

**Product name** 

HiLoad™ 16/600 Superose™ 6 pg [120 mL]

**Catalogue Number** 29323952

Other means of identification Product type

Not available.

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

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Cvtiva USA 100 Results Way Marlborough, MA 01752

1-800-526-3593

INFOTRAC - 24 Hour number: 1-800-535-5053 In case of emergency

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

Section 2. Hazards identification

**OSHA/HCS** status This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR

1910.1200).

Classification of the substance

or mixture

FLAMMABLE LIQUIDS - Category 3

**GHS label elements Hazard pictograms** 

Signal word

**Hazard statements** Flammable liquid and vapor.

**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.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Response

Storage Not applicable.

Dispose of contents and container in accordance with all local, regional, national and international Disposal

regulations.

Hazards not otherwise

classified

None known

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Hazards identified when used No known significant effects or critical hazards.

# Section 3. Composition/information on ingredients

Substance/mixture Mixture
Other means of identification Not available.

Ingredient nameSynonyms%Identifiersethanolethyl alcohol; ALCOHOL; Ethyl≥10 - ≤30CAS: 64-17-5

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) propyllauryldimethylammonium 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

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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**

Eye contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check

for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin contact Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get

medical attention if symptoms occur.

Ingestion Wash out mouth with water. If material has been swallowed and the exposed person is conscious,

give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical

personnel.

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

# Potential acute health effects

Eye contactNo known significant effects or critical hazards.InhalationNo known significant effects or critical hazards.Skin contactNo known significant effects or critical hazards.IngestionNo known significant effects or critical hazards.

# Over-exposure signs/symptoms

Eye contactNo specific data.InhalationNo specific data.Skin contactNo specific data.IngestionNo specific data.

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

Notes to physician Treat symptomatically. Contact poison treatment specialist immediately if large quantities have

been ingested or inhaled.

Specific treatments No specific treatment.

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Protection of first-aiders No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)



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# Section 5. Fire-fighting measures

#### Extinguishing media

Suitable extinguishing media

Use dry chemical, CO2, water spray (fog) or foam.

Unsuitable extinguishing

media

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

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

For non-emergency personnel

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 flares, smoking or flames in hazard area. Put on appropriate personal protective equipment.

For emergency responders

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

Small spill

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

Large spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosionproof 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

Protective measures

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.

Advice on general occupational hygiene 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.

Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 4 to 30°C (39.2 to 86°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.

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# Section 8. Exposure controls/personal protection

### **Control parameters**

Occupational exposure limits

Ingredient name

ethanol

### **Exposure limits**

NIOSH REL (United States, 10/2020)

TWA 10 hours: 1000 ppm. TWA 10 hours: 1900 mg/m³.

CAL OSHA PEL (United States, 1/2025)

TWA 8 hours: 1900 mg/m³. TWA 8 hours: 1000 ppm.

OSHA PEL (United States, 5/2018)

TWA 8 hours: 1000 ppm. TWA 8 hours: 1900 mg/m<sup>3</sup>

OSHA PEL 1989 (United States, 3/1989)

TWA 8 hours: 1000 ppm. TWA 8 hours: 1900 mg/m³.

ACGIH TLV (United States, 1/2024) A3.

STEL 15 minutes: 1000 ppm.

#### **Biological exposure indices**

No exposure indices known.

Appropriate engineering controls

Environmental exposure controls

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.

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**

Hygiene measures

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.

Eye/face protection

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: safety glasses with side-shields. Recommended: safety glasses with side-shields

### Skin protection

Hand protection

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

**Body protection** 

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

Other skin protection

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.

Respiratory protection

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.

Personal protective equipment (Pictograms)



Vapor pressure at 50°C

# Section 9. Physical and chemical properties

**Appearance** 

Physical state Liquid.

White. White to yellowish. Color Odor Alcohol-like. [Slight]

Odor threshold 180 ppm

5.5 to 8.5 [Conc. (% w/w): 100%] рΗ

Melting point/freezing point Not available. Boiling point or initial boiling Not available.

point and boiling range

Flash point Closed cup: 38 to 43°C (100.4 to 109.4°F)

**Burning time** Not applicable. **Burning rate** Not applicable. **Evaporation rate** Not available. Flammability Not available. Not available.

Lower and upper explosive

(flammable) limits

Vapor pressure Not available.

> Ingredient name mm Hg kPa Method mm Hg kPa Method 42.94865 ethanol 5.7 17.5 23 water 0 0 Agarose

Vapor Pressure at 20°C

Relative vapor density Not available. Relative density Not available.

Solubility(ies)

Media Result cold water Easily soluble hot water Easily soluble

Solubility in water Not available.

Miscible with water Yes

Partition coefficient: n-octanol/

**Auto-ignition temperature** 

water

Not available.

Not applicable.

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

**Decomposition temperature** Not available. SADT Not available.

Dynamic (room temperature): Not available. Viscosity

Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): Not available.

Flow time (ISO 2431) Not available.

Particle characteristics

Median particle size Not applicable.

# Section 10. Stability and reactivity

Reactivity No specific test data related to reactivity available for this product or its ingredients.

Chemical stability The product is stable.

Possibility of hazardous

reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid 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.

Reactive or incompatible with the following materials: oxidizing materials

Hazardous decomposition

Incompatible materials

products

Under normal conditions of storage and use, hazardous decomposition products should not be

produced.

# Section 11. Toxicological information

### Information on toxicological effects

**Acute toxicity** 

Product/ingredient name

ethanol

Result

**Rat - Oral - LD50** 7060 mg/kg

<u>Toxic effects</u>: Lung, Thorax, or Respiration - Other changes

Rat - Inhalation - LC50 Vapor 124700 mg/m³ [4 hours]

Conclusion/Summary

[Product]

Not available.

Skin corrosion/irritation

Not available.

Conclusion/Summary

[Product]

Repeated exposure may cause skin dryness or cracking.

Serious eye damage/eye irritation

Not available.

Conclusion/Summary

[Product]

Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary

[Product]

Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary

[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.

Reproductive toxicity

Not available.

Conclusion/Summary

[Product]

Not available.

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### 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

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

of exposure

### Potential acute health effects

Eye contactNo known significant effects or critical hazards.InhalationNo known significant effects or critical hazards.Skin contactNo known significant effects or critical hazards.IngestionNo known significant effects or critical hazards.

# Symptoms related to the physical, chemical and toxicological characteristics

Eye contactNo specific data.InhalationNo specific data.Skin contactNo specific data.IngestionNo 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.

Long term exposure

Potential immediate effects Not available.

Potential delayed effects Not available.

# Potential chronic health effects

Not available.

Conclusion/Summary

[Product]

Not available.

GeneralNo known significant effects or critical hazards.CarcinogenicityNo known significant effects or critical hazards.MutagenicityNo known significant effects or critical hazards.Reproductive toxicityNo known significant effects or critical hazards.

## **Numerical measures of toxicity**

### **Acute toxicity estimates**

Product/ingredient name

Oral (mg/kg)

Dermal
(mg/kg)

(gases)

(vapors)

(dusts and
(ppm)

(mg/l)

mists) (mg/

ethanol 7000 N/A N/A 124.7 N/A

Other information Adverse symptoms include the following: kidney abnormalities, liver abnormalities

Adverse symptoms may include the following: central nervous system depression

# Section 12. Ecological information

#### **Toxicity**

Product/ingredient name

Acute - LC50 - Marine water ethano Fish - Bleak - Alburnus alburnus

> Size: 8 to 10 cm 11 g/l [96 hours] Effect: Mortality

Result

Chronic - NOEC - Marine water Algae - Green algae - Ulva pertusa

4.995 mg/l [96 hours] Effect: Reproduction Acute - EC50 - Fresh water

Crustaceans - Ostracod - Cypris subglobosa

1074 mg/l [48 hours] Effect: Intoxication

Chronic - NOEC - Fresh water

Daphnia - Water flea - Daphnia magna - Neonate

Age: <24 hours 100 µl/l [21 days] Effect: Mortality

Acute - EC50 - Marine water Algae - Green algae - Ulva pertusa

Size: 9.4 mm 3306 mg/l [96 hours] Effect: Reproduction

Conclusion/Summary

[Product]

Not available.

Persistence and degradability

Product/ingredient name

ethanol

Result **Aerobic** 

100% [20 days] - Readily

Aquatic half-life Product/ingredient name Biodegradability **Photolysis** ethanol

Readily

Bioaccumulative potential

Product/ingredient name BCF **Potential** LogPow -0.35 0.66 ethanol I ow

**Mobility in soil** 

Waste stream

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. Code: D001

Classification: Ignitability

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# Section 14. Transport information

Product is not regulated as dangerous goods for transport.

# Section 15. Regulatory information

U.S. Federal regulations TSCA 8(a) CDR Exempt/Partial exemption: Not determined

### TSCA 12(b) - Chemical export notification

Not applicable.

Clean Air Act Section 112(b) Hazardous Air Pollutants Not listed

(HAPs)

Clean Air Act Section 602 Class I Substances

Clean Air Act Section 602 Class II Substances

Not listed

DEA List I Chemicals (Precursor Chemicals)

Not listed

DEA List II Chemicals (Essential Chemicals)

Not listed

**SARA 302/304** 

### Composition/information on ingredients

No products were found.

SARA 304 RQ Not applicable.

**SARA 311/312** 

Classification FLAMMABLE LIQUIDS - Category 3

Composition/information on ingredients

Name % Classification

ethanol 14 - 19 FLAMMABLE LIQUIDS - Category 2

State regulations

Massachusetts The following components are listed: ETHYL ALCOHOL

New York None of the components are listed.

New Jersey The following components are listed: ETHYL ALCOHOL Pennsylvania The following components are listed: ETHANOL

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

### **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**

Article Number :

United States Not determined.

Canada inventory All components are listed or exempted.

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# Section 16. Other information

### National Fire Protection Association (U.S.A.)



### Procedure used to derive the classification

Classification Justification

FLAMMABLE LIQUIDS - Category 3 On basis of test data

### **History**

Date of printing 9/29/2025 9/29/2025 Date of issue/Date of revision Date of previous issue 8/5/2025 Version

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Key to abbreviations ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

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

References Not available.

Indicates information that has changed from previously issued version.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.