

SAFETY DATA SHEET

United States

Section 1. Identification

Product name

HiTrap™ Phenyl HP 1 ml, 5 x 1 ml

Catalogue Number 17135101

Other means of identification Not available.

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

Industrial applications: Analytical chemistry. Liquid chromatography. Scientific research and development.

Supplier Cytiva

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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)

Cvtiva USA

100 Results Way Marlborough, MÁ 01752

1-800-526-3593

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. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking

tools. Take action to prevent static discharges. Keep container tightly closed.

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

Storage Store in a well-ventilated place. Keep cool.

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

regulations.

Hazards not otherwise

classified

None known.

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Validation date 14 October 2023

Version 9

Section 3. Composition/information on ingredients

Substance/mixture Mixture
Other means of identification Not available.

CAS number/other identifiers

CAS number Not applicable.

Ingredient name%CAS numberethanol14 - 1964-17-5

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 $\frac{1}{2}$

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 physicianTreat symptomatically. Contact poison treatment specialist immediately if large quantities have

been ingested or inhaled.

Specific treatments No specific treatment.

Protection of first-aidersNo action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

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

Unsuitable extinguishing Do not use

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

explosion

Hazardous thermal

Decomposition products may include the following materials: carbon dioxide

decomposition products

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.

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Environmental precautions

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".

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 explosion-

proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry 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 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. 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 (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact

information and Section 13 for waste disposal.

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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

ethanol

ACGIH TLV (United States, 1/2022). Notes: 1996 Adoption Refers to Appendix A -- Carcinogens.

STEL: 1000 ppm 15 minutes

NIOSH REL (United States, 10/2020). Notes:

TWA: 1900 mg/m³ 10 hours.

NIOSH REL (United States, 10/2020).

TWA: 1000 ppm 10 hours.

OSHA PEL (United States, 5/2018).

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

OSHA PEL 1989 (United States, 3/1989).

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

Biological exposure indices

No exposure indices known.

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Appropriate engineering 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.

Environmental exposure

controls

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)



Section 9. Physical and chemical properties

Appearance

Physical state Liquid.

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

Odor threshold 180 ppm

5.5 to 8.5 [Conc. (% w/w): 100%]

Melting point/freezing point Boiling point, initial boiling

point, and boiling range

Not available. Not available.

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 Lower and upper explosive Not available

(flammable) limits

Vapor pressure Not available

> Vapor Pressure at 20°C Vapor pressure at 50°C

Method Ingredient name mm Hg kPa Method mm Hg kPa

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42.95 ethanol 5.7 23.8 water 3.2 Agarose 0

Relative vapor density Relative density Solubility(ies)

Not available. Not available.

Media Result cold water Easily soluble

hot water Easily soluble

Solubility in water Not available.

Miscible with water Partition coefficient: n-octanol/

water

Not applicable.

Not available. **Auto-ignition temperature**

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

Not available. **Decomposition temperature** SADT Not available Not available **Viscosity** Not available Flow time (ISO 2431)

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

Conditions to avoid

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

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.

Incompatible materials Reactive or incompatible with the following materials:

oxidizing materials

Hazardous decomposition

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 Result Species Dose **Exposure** ethanol LC50 Inhalation Vapor Rat 124700 mg/m³ 4 hours

Irritation/Corrosion Not available.

Conclusion/Summary

Repeated exposure may cause skin dryness or cracking.

Sensitization Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

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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.

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 Inhalation Inhalation Inhalation (dusts and (gases) (vapors) (mg/kg) (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 Result **Species Exposure** 96 hours ethanol Acute EC50 3306 mg/l Marine water Algae - Ulva pertusa Acute EC50 1074 mg/l Fresh water Crustaceans - Cypris subglobosa 48 hours Daphnia - Daphnia magna 48 hours Acute EC50 9.3 mg/l Fresh water Acute LC50 11000000 µg/l Marine water Fish - Alburnus alburnus 96 hours Chronic NOEC 4.995 mg/l Marine water Algae - Ulva pertusa 96 hours Chronic NOEC 100 ul/L Fresh water Daphnia - Daphnia magna - Neonate 21 days

Persistence and degradability

 Product/ingredient name
 Test
 Result
 Dose
 Inoculum

 ethanol
 100 % - Readily - 20 days

Product/ingredient nameAquatic half-lifePhotolysisBiodegradabilityethanol--Readily

Bioaccumulative potential

Product/ingredient nameLogPowBCFPotentialethanol-0.350.66Low

Mobility in soil

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Soil/water partition coefficient (K

oc)

Other adverse effects No known significant effects or critical hazards.

Not available

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.

Waste stream Code: D001

Classification: Ignitability

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

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

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UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

United States Not determined.

Canada inventory All components are listed or exempted.

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 10/15/2023 Date of issue/Date of revision 10/14/2023 Date of previous issue 1/18/2022 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 Not available.

References

Indicates information that has changed from previously issued version.

Notice to reader

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