

# **Safety Data Sheet**

Canada

Section 1. Identification

Product name His Mag Sepharose excel; part of 'Demokit His

Mag Sepharose excel'

Catalogue Number 29-1199-87

Product type Liquid.

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

Identified uses

Use in laboratories Liquid chromatography. Scientific research and development

Supplier Cytiva

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## Section 2. Hazard identification

Classification of the substance

or mixture

FLAMMABLE LIQUIDS - Category 3
EYE IRRITATION - Category 2B
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1
AQUATIC HAZARD (ACUTE) - Category 1
AQUATIC HAZARD (LONG-TERM) - Category 3

# **GHS label elements**

**Hazard pictograms** 









Signal word Danger

Hazard statements Flammable liquid and vapor.

Causes eye irritation.

May cause an allergic skin reaction.

May cause cancer. Very toxic to aquatic life.

Harmful to aquatic life with long lasting effects.

**Precautionary statements** 

9 5 2 9 1 1 9 9 8 7 1

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Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read

and understood. 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. Avoid release to the environment. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the

vorkplace.

Response Collect spillage. In case of fire: Use water spray, dry chemical powder or carbon dioxide to

extinguish. IF exposed or concerned: Get medical attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical attention. 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 attention.

Storage Store locked up.

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

regulations.

Supplemental label elements Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 66.5%

Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 50%

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic

environment: 50%

# 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
 % (w/w)
 CAS number

 Ethyl alcohol
 14 - 19
 64-17-5

 Nickel
 0.12
 7440-02-0

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment 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. Continue to rinse for at least 10 minutes. Get medical attention.

**Inhalation** 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 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.

**Skin contact** Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash

contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid

further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in

a position comfortable for breathing. 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. 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

Eye contact Causes eye irritation.

**Inhalation** No known significant effects or critical hazards.

**Skin contact** May cause an allergic skin reaction.

**Ingestion** No known significant effects or critical hazards.

Over-exposure signs/symptoms

**Eye contact** Adverse symptoms may include the following:

irritation watering redness

Inhalation No specific data.

**Skin contact** Adverse symptoms may include the following:

irritation redness

**Ingestion** No 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

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

that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

#### See toxicological information (Section 11)

# Section 5. Fire-fighting measures

### **Extinguishing media**

**Suitable extinguishing media** Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

Unsuitable extinguishing

media

Never use water for extinction.

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. This material is very toxic to aquatic life. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from

being discharged to any waterway, sewer or drain.

Hazardous thermal

decomposition products

Decomposition products may include the following materials: carbon dioxide

carbon monoxide metal oxide/oxides

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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

## 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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. 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. Store locked up. 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

## Ingredient name

Ethyl alcohol

Nickel

## Exposure limits

CA Alberta Provincial (Canada, 4/2009).

8 hrs OEL: 1880 mg/m³ 8 hours. 8 hrs OEL: 1000 ppm 8 hours.

CA Quebec Provincial (Canada, 1/2014).

TWAEV: 1880 mg/m³ 8 hours. TWAEV: 1000 ppm 8 hours.

CA British Columbia Provincial (Canada, 6/2017).

STEL: 1000 ppm 15 minutes.

CA Ontario Provincial (Canada, 1/2018).

STEL: 1000 ppm 15 minutes.

CA Saskatchewan Provincial (Canada, 7/2013).

STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours.

## CA Saskatchewan Provincial (Canada, 7/2013).

STEL: 3 mg/m³ 15 minutes. Form: Inhalable fraction

TWA: 1.5 mg/m³ 8 hours. Form: Inhalable fraction **CA Ontario Provincial (Canada, 1/2018).** 

TWA: 1 mg/m³ 8 hours. Form: Inhalable fraction. CA Alberta Provincial (Canada, 4/2009).

8 hrs OEL: 1.5 mg/m³ 8 hours.

CA Quebec Provincial (Canada, 1/2014).

TWAEV: 1 mg/m³ 8 hours.

CA British Columbia Provincial (Canada, 6/2017).

Notes: as Ni

TWA: 0.05 mg/m³, (as Ni) 8 hours.

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. Contaminated work clothing should not be allowed out of the workplace. 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: chemical splash goggles. 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.

# Section 9. Physical and chemical properties

## **Appearance**

Physical state Liquid.

Color Blue. Green.

Odor Alcohol-like. [Slight]

Odor threshold180 ppmpHNot available.Melting pointNot available.Boiling pointNot available.

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

**Evaporation rate** Not available.

**Flammability (solid, gas)**Use an extinguishing agent suitable for the surrounding fire.

Lower and upper explosive

(flammable) limits

Not available.

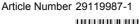
Vapor pressureNot available.Vapor densityNot available.Relative densityNot available.

**Solubility** Easily soluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/

water

Not available



Auto-ignition temperature

Decomposition temperature

Viscosity

Not available.

Not available.

Not available.

Not available.

# 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 nameResultSpeciesDoseExposureEthyl alcoholLC50 Inhalation VaporRat124700 mg/m³4 hours

## Irritation/Corrosion

Not available.

## **Sensitization**

Not available.

### **Mutagenicity**

Not available.

# **Carcinogenicity**

Not available.

## Reproductive toxicity

Not available.

# **Teratogenicity**

Not available.

## Specific target organ toxicity (single exposure)

Not available.

## Specific target organ toxicity (repeated exposure)

NameCategoryRoute of exposureTarget organsNickelCategory 1Not determinedNot determined

### **Aspiration hazard**

Not available.

Information on the likely routes

Routes of entry anticipated: Oral, Dermal, Inhalation.

of exposure

# Potential acute health effects

**Eye contact** Causes eye irritation.

**Inhalation** No known significant effects or critical hazards.

**Skin contact** May cause an allergic skin reaction.

**Ingestion** No known significant effects or critical hazards.



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

**Eye contact** Adverse symptoms may include the following:

irritation watering redness

Inhalation No specific data.

**Skin contact** Adverse symptoms may include the following:

irritation

redness

**Ingestion** 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.

Long term exposure

Potential immediate effects Not available.

Potential delayed effects Not available.

### Potential chronic health effects

Not available.

General Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity May cause cancer. Risk of cancer depends on duration and level of exposure.

MutagenicityNo known significant effects or critical hazards.TeratogenicityNo known significant effects or critical hazards.Developmental effectsNo known significant effects or critical hazards.Fertility effectsNo known significant effects or critical hazards.

## **Numerical measures of toxicity**

**Acute toxicity estimates** 

Product/ingredient name Oral (mg/kg) Dermal Inhalation Inhalation Inhalation (mg/kg) (gases) (vapors) (dusts and (ppm) (mg/l) mists) (mg/l)

Ethyl alcohol 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
Ethyl alcohol	Acute EC50 17.921 mg/l Marine water	Algae - Ulva pertusa	96 hours
•	Acute LC50 25500 μg/l Marine water	Crustaceans - Artemia franciscana - Larvae	48 hours
	Acute LC50 5680 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 42000 µg/l Fresh water	Fish - Oncorhynchus mykiss	4 days
	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
Nickel	Acute EC50 2 ppm Marine water	Algae - Macrocystis pyrifera - Young	4 days
	Acute EC50 450 μg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute EC50 1000 µg/l Marine water	Daphnia - Daphnia magna	48 hours
	Acute IC50 0.31 mg/l Marine water	Crustaceans - Americamysis bahia - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 47.5 ng/L Fresh water	Fish - Heteropneustes fossilis	96 hours
	Chronic NOEC 100 mg/l Marine water	Algae - Glenodinium halli	72 hours
	Chronic NOEC 3.5 µg/l Fresh water	Fish - Cyprinus carpio	4 weeks

# Persistence and degradability

Product/ingredient name Test Result Dose Inoculum

Ethyl alcohol 100 % - Readily - 20 days

Product/ingredient name Biodegradability Aquatic half-life **Photolysis** Ethyl alcohol Readily

**Bioaccumulative potential** 

Product/ingredient name **BCF Potential** LogPow Ethyl alcohol 0.66 -0.35 low Nickel 16 low

**Mobility in soil** 

Soil/water partition coefficient Not available.

(Koc)

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

# 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	-	-	-	-	Remarks IATA Special Provision A 58 - Aqueous solutions containing 24% or less alcohol by volume is not subject to these regulations.

Special precautions for user

Transport within user's premises: 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 Annex II of MARPOL and the **IBC Code** 

Not available.

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# Section 15. Regulatory information

#### **Canadian lists**

Canadian NPRI The following components are listed: ethanol

**CEPA Toxic substances** 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**

Canada All components are listed or exempted Europe All components are listed or exempted **United States** All components are listed or exempted

## Section 16. Other information

## **History**

Date of printing 4/20/2020 Date of issue/Date of revision 8/27/2019 Date of previous issue 10/17/2017

4 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

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 SKIN SENSITIZATION - Category 1 Calculation method CARCINOGENICITY - Category 1 Calculation method AQUATIC HAZARD (ACUTE) - Category 1 Calculation method AQUATIC HAZARD (LONG-TERM) - Category 3 Calculation method

References



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.

Article Number 29119987-1