

Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**Product Identifier**

Perihalan Produk: Tris-borate-EDTA-urea large precast gel, 10%  
Product Description: Tris-borate-EDTA-urea large precast gel, 10%  
Cat No. : J67657

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

Recommended Use Laboratory chemicals.  
Uses advised against No Information available

**Company**

Thermo Fisher Scientific Fisher Scientific (M) Sdn Bhd  
Hap Seng Business Park, Lot 01-03, 01-04 Aras 1 Unity Square,  
No 12, Persiaran Perusahaan, Seksyen 23, 40300 Shah Alam,  
Selangor Darul Ehsan, Malaysia.  
Main line: +60 3-5525 7888

**Supplier**

E-mail address Enquiry.my@thermofisher.com

**Emergency Telephone Number**

Tel: +03-5525 7888  
CHEMTREC Malaysia **1-800-815-308** (Malay)  
CHEMTREC Malaysia (Kuala Lumpur) **+(60)-327884561** (Malay)

**SECTION 2: HAZARDS IDENTIFICATION**

**Classification of the substance or mixture**

**Label Elements**

**Hazard Statements**

**Storage**

P403 - Store in a well-ventilated place

**Disposal**

P501 - Dispose of contents/ container to an approved waste disposal plant

**Other Hazards**

EUH210 - Safety data sheet available on request

Toxic to terrestrial vertebrates

This product does not contain any known or suspected endocrine disruptors

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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight %
Water	7732-18-5	54
Urea	57-13-6	35
2-Propenamide, N,N'-methylenebis-, polymer with 2-propenamide	25034-58-6	10
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	1185-53-1	1

## SECTION 4: FIRST AID MEASURES

### Description of first aid measures

**Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

**Ingestion** Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

**Inhalation** Remove to fresh air. Get medical attention immediately if symptoms occur.

**Self-Protection of the First Aider** No special precautions required.

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

None reasonably foreseeable.

### Indication of any immediate medical attention and special treatment needed

**Notes to Physician** Treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

### Extinguishing media

#### **Suitable Extinguishing Media**

Carbon dioxide (CO<sub>2</sub>). Powder. Water spray. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

#### **Extinguishing media which must not be used for safety reasons**

No information available.

### Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors.

#### **Hazardous Combustion Products**

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride.

### Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

### Environmental precautions

Should not be released into the environment. See Section 12 for additional Ecological Information.

### Methods and Material for Containment and Cleaning Up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

### Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### Precautions for Safe Handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation.

### Conditions for Safe Storage, Including any Incompatibilities

Keep refrigerated.

### Specific End Uses

Use in laboratories.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

### Exposure Controls

#### Engineering Measures

None under normal use conditions.

### Personal protective equipment

#### Eye Protection

Wear safety glasses with side shields (or goggles)

#### Hand Protection

Protective gloves

#### Skin and body protection

Long sleeved clothing

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

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**Respiratory Protection**  
**Recommended Filter type:**

No protective equipment is needed under normal use conditions  
Particle filter

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice

**Environmental exposure controls**

No information available

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Appearance</b>	Colorless
<b>Physical State</b>	Solid Gel
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	No data available
<b>pH</b>	No information available

<b>Melting Point/Range</b>	No data available
<b>Softening Point</b>	No data available
<b>Boiling Point/Range</b>	No information available
<b>Flash Point</b>	No information available

**Method -** No information available

<b>Evaporation Rate</b>	Not applicable
<b>Flammability (solid,gas)</b>	No information available
<b>Explosion Limits</b>	No data available

Solid

<b>Vapor Pressure</b>	23 hPa @ 20 °C
<b>Vapor Density</b>	Not applicable
<b>Specific Gravity / Density</b>	No data available
<b>Bulk Density</b>	No data available
<b>Water Solubility</b>	Insoluble in water
<b>Solubility in other solvents</b>	No information available

Solid

**Partition Coefficient (n-octanol/water)**

<b>Component</b>	<b>log Pow</b>
Urea	<-1.73
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	-3.6

<b>Autoignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	Not applicable
<b>Explosive Properties</b>	No information available
<b>Oxidizing Properties</b>	No information available

Solid

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## SECTION 10: STABILITY AND REACTIVITY

### Reactivity

None known, based on information available.

### Chemical Stability

Stable under normal conditions.

### Possibility of Hazardous Reactions

**Hazardous Polymerization**  
**Hazardous Reactions**

No information available.  
None under normal processing.

### Conditions to Avoid

None known.

### Incompatible Materials

Oxidizing agent.

### Hazardous Decomposition Products

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>). Hydrogen chloride.

## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

#### Product Information

#### (a) acute toxicity;

**Oral**

Based on available data, the classification criteria are not met

**Dermal**

No data available

**Inhalation**

No data available

#### Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	-	-	-
Urea	LD50 = 8471 mg/kg ( Rat )	-	-
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	OECD 425 (Rat) LD50 > 5000 mg/kg bw	OECD 402 (Rat) LD50 > 5000 mg/kg bw	-

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

#### (d) respiratory or skin sensitization;

**Respiratory**

No data available

**Skin**

No data available

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Component	Test method	Test species	Study result
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride 1185-53-1 ( 1 )	OECD Test Guideline 406	guinea pig	non-sensitising

(e) germ cell mutagenicity; No data available

Component	Test method	Test species	Study result
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride 1185-53-1 ( 1 )	OECD Test Guideline 471 Bacterial Reverse Mutation Test	Mammalian in vitro	negative

(f) carcinogenicity; No data available

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs No information available.

(j) aspiration hazard; Not applicable  
Solid

Symptoms / effects,both acute and delayed No information available.

Endocrine Disrupting Properties Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

## SECTION 12: ECOLOGICAL INFORMATION

### Ecotoxicity effects

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Urea	LC50: 16200 - 18300 mg/L, 96h (Poecilia reticulata)	EC50: = 3910 mg/L, 48h Static (Daphnia magna)		= 23914 mg/L EC50 Photobacterium phosphoreum 5 min
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride		Daphnia Magna EC50 >100 mg/L (48h)		OECD 209 EC50 > 1000 mg/L (3h)

### Persistence and degradability

Persistence Insoluble in water.

Bioaccumulative potential May have some potential to bioaccumulate

Component	log Pow	Bioconcentration factor (BCF)
Urea	<-1.73	<10 dimensionless
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	-3.6	No data available

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**Mobility in soil** Spillage unlikely to penetrate soil. Is not likely mobile in the environment due its low water solubility.

**Endocrine Disruptor Information** This product does not contain any known or suspected endocrine disruptors

**Other adverse effects** No information available

## SECTION 13: DISPOSAL CONSIDERATIONS

### **Waste treatment methods**

**Waste from Residues/Unused Products** Dispose of in accordance with local regulations

**Contaminated Packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal

## SECTION 14: TRANSPORT INFORMATION

**IMDG/IMO** Not regulated

**Road and Rail Transport** Not regulated

**IATA** Not regulated

**Special Precautions for User** No special precautions required

## SECTION 15: REGULATORY INFORMATION

### **Safety, health and environmental regulations/legislation specific for the substance or mixture**

**International Inventories** X = listed

Component	EINECS	TSCA	DSL	PICCS	ENCS	ISHL	IECSC	AICS	KECL
Water	231-791-2	X	X	X	X		X	X	KE-35400
Urea	200-315-5	X	X	X	X	X	X	X	KE-35144
2-Propenamide, N,N'-methylenebis-, polymer with 2-propenamide	-	X	X	-	X	X	X	-	2010-3-4842
1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride	214-684-5	X	X	X	X		X	X	KE-34819

### **National Regulations**

**Persistent Organic Pollutant** This product does not contain any known or suspected substance

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Ozone Depletion Potential

This product does not contain any known or suspected substance

## SECTION 16: OTHER INFORMATION

### Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**POW** - Partition coefficient Octanol:Water

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (Volatile Organic Compound)

### Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Prepared By

Health, Safety and Environmental Department

Revision Date

31-Mar-2025

Revision Summary

Not applicable.

**In accordance with local and national regulations: Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013**

### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**