

# SAFETY DATA SHEET

### Classified as hazardous in accordance with the criteria of EPA New Zealand

## **Section 1 - Identification**

**Product Identifier** 

Product Name <u>Elastin Stain Kit</u>

Recommended Use Laboratory chemicals.
Uses advised against No Information available

Product Code ALP87017

Address Thermo Fisher Scientific New Zealand Ltd

244 Bush Road, Albany, Auckland, New Zealand

Emergency Tel. CHEMTREC®

09 980 6780 or +64 9 980 6780

**Telephone / Fax Numbers** Tel: 09 980 6700

Fax: 09 980 6788

E-mail address ANZinfo@thermofisher.com

# **Section 2 - Hazard(s) Identification**

Classification under Work Safe New Zealand

Classified as hazardous in accordance with the criteria of EPA New Zealand

HSNO Approval Number HSR002596

**GHS Classification** 

Physical hazards

Flammable liquids Category 2

#### **Health hazards**

Acute Oral Toxicity

Acute Inhalation Toxicity - Vapors

Serious Eye Damage/Eye Irritation

Category 2

Reproductive Toxicity

Specific target organ toxicity - (single exposure)

Category 1

Category 1

**Environmental hazards** 

Based on available data, the classification criteria are not met

**Label Elements** 

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Signal Word

Danger

#### **Hazard Statements**

H225 - Highly flammable liquid and vapor

H319 - Causes serious eye irritation

H361 - Suspected of damaging fertility or the unborn child

H370 - Causes damage to organs

H302 + H332 - Harmful if swallowed or if inhaled

#### **Precautionary Statements**

#### Prevention

P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P233 - Keep container tightly closed

P240 - Ground and bond container and receiving equipment

P242 - Use non-sparking tools

P243 - Take action to prevent static discharges

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P271 - Use only outdoors or in a well-ventilated area

P280 - Wear protective gloves/protective clothing/eye protection/face protection

### Response

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P312 - Call a POISON CENTER or doctor if you feel unwell

P330 - Rinse mouth

P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor

#### Storage

P403 + P235 - Store in a well-ventilated place. Keep cool

### **Disposal**

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

### Other hazards which do not result in classification

This product does not contain any known or suspected endocrine disruptors

# Section 3 - Composition and Information on Ingredients

Component	CAS No	Weight %
Ethyl alcohol	64-17-5	85 - 90
Methyl alcohol	67-56-1	4 - 5
Isopropyl alcohol	67-63-0	4 - 5
Hematoxylin	517-28-2	< 1

## **Section 4 - First Aid Measures**

### **Description of first aid measures**

New Zealand Emergency Tel. CHEMTREC®

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09 980 6780 or +64 9 980 6780

**Inhalation** Remove to fresh air. Do not use mouth-to-mouth method if victim ingested or inhaled the

substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. If

not breathing, give artificial respiration.

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. Immediate medical

attention is required.

**Ingestion** Do NOT induce vomiting. Call a physician or poison control center immediately.

Self-Protection of the First Aider Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination.

First Aid Facilities Eyewash, safety shower and washroom.

Most important symptoms and

effects

Difficulty in breathing. Inhalation of high vapor concentrations may cause symptoms like

headache, dizziness, tiredness, nausea and vomiting

Notes to Physician Treat symptomatically.

# **Section 5 - Fire Fighting Measures**

#### **Suitable Extinguishing Media**

Water mist may be used to cool closed containers.

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

No information available.

#### **Specific Hazards Arising from the Chemical**

Flammable. Risk of ignition. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated.

#### **Hazardous Combustion Products**

None under normal use conditions.

#### Special protective equipment and precautions for fire fighters

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

### **Section 6 - Accidental Release Measures**

### Personal Precautions, Protective Equipment and Emergency Procedures

#### **Emergency procedures**

Remove all sources of ignition. Take precautionary measures against static discharges. Do not get in eyes, on skin, or on clothing. Use personal protective equipment as required.

#### **Environmental Precautions**

Do not flush into surface water or sanitary sewer system.

#### Methods for Containment and Clean Up

Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Take precautionary measures against static discharges. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

#### Precautions to prevent secondary hazards

Clean contaminated objects and areas thoroughly observing environmental regulations

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#### **Reference to Other Sections**

Refer to protective measures listed in Sections 8 and 13.

# **Section 7 - Handling and Storage**

#### **Precautions for Safe Handling**

#### Advice on safe handling

Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Use spark-proof tools and explosion-proof equipment. Take precautionary measures against static discharges. Use only under a chemical fume hood. Do not breathe (dust, vapor, mist, gas). Do not get in eyes, on skin, or on clothing. Do not ingest. If swallowed then seek immediate medical assistance. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.

#### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

#### Conditions for Safe Storage, Including any Incompatibilities

#### **Storage Conditions**

Keep away from open flames, hot surfaces and sources of ignition. Flammables area. Keep away from heat, sparks and flame. Keep container tightly closed in a dry and well-ventilated place.

#### **Incompatible Materials**

None known.

AS/NZS 2243.10:2004, Safety in laboratories - Storage of chemicals AS 1940-2004 - The storage and handling of flammable and combustible liquids

# **Section 8 - Exposure Controls and Personal Protection**

#### **Control parameters**

#### **Exposure limits**

**NZ** - Workplace Exposure Standards and Biological Exposure Indices (6th edition). New Zealand Department of Labor **UK** - EH40/2005 Work Exposure Limits, Fourth edition. Published 2020.

AUS - Exposure Standards for Atmospheric Contaminants in the Occupational Environment - Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:3008(1995)] Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)] updated in August, 2005. Safe Work Australia

**ACGIH** - Threshold Limit Values - Ceiling (TLV-C) guidelines by the American Conference of Governmental Industrial Hygienists (ACGIH) for controlling worker exposure to airborne chemical concentrations in the workplace.

Component	New Zealand WEL	Australia	ACGIH TLV	The United Kingdom
Ethyl alcohol	TWA: 1000 ppm	TWA: 1000 ppm	STEL: 1000 ppm	TWA: 1000 ppm TWA; 1920
	TWA: 1880 mg/m <sup>3</sup>	TWA: 1880 mg/m <sup>3</sup>		mg/m³ TWA
		_		WEL - STEL: 3000 ppm
				STEL; 5760 mg/m <sup>3</sup> STEL
Methyl alcohol	TWA: 200 ppm	STEL: 250 ppm	TWA: 200 ppm	WEL - TWA: 200 ppm TWA;
	TWA: 262 mg/m <sup>3</sup>	STEL: 328 mg/m <sup>3</sup>	STEL: 250 ppm	266 mg/m³ TWA
	STEL: 250 ppm	TWA: 200 ppm	Skin	WEL - STEL: 250 ppm
	STEL: 328 mg/m <sup>3</sup>	TWA: 262 mg/m <sup>3</sup>		STEL; 333 mg/m <sup>3</sup> STEL
	Skin	_		
Isopropyl alcohol	TWA: 400 ppm	STEL: 500 ppm	TWA: 200 ppm	STEL: 500 ppm 15 min
	TWA: 983 mg/m <sup>3</sup>	STEL: 1230 mg/m <sup>3</sup>	STEL: 400 ppm	STEL: 1250 mg/m <sup>3</sup> 15 min
	STEL: 500 ppm	TWA: 400 ppm		TWA: 400 ppm 8 hr
	STEL: 1230 mg/m <sup>3</sup>	TWA: 983 mg/m <sup>3</sup>		TWA: 999 mg/m <sup>3</sup> 8 hr

### **Biological limit values**

**NZ** - Substances assigned Biological Exposure Indices in the New Zealand Workplace Exposure Standards and Biological Exposure Indices (6th edition). New Zealand Department of Labor

ACGIH - American Conference of Governmental Industrial Hygienists (ACGIH) TLVs® and BEIs®- Threshold Limit Values for

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Chemical Substances and Physical Agents & Biological Exposure Indices. 2022 Edition

Component	New Zealand	Australia	ACGIH - Biological Exposure Indices	United Kingdom
Methyl alcohol	15 mg/L (urine) end of shift (Methyl alcohol)		15 mg/L Medium: urine Time: end of shift Determinant: Methanol	
Isopropyl alcohol			40 mg/L Medium: urine Time: end of shift at end of workweek Determinant: Acetone	

### Appropriate engineering controls

### **Engineering Measures**

Use explosion-proof electrical/ventilating/lighting equipment. Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

#### Individual protection measures, such as personal protective equipment

Eye Protection Wear safety glasses with side shields (or goggles) (Australian/New Zealand Standard

AS/NZS 1337 - Eye protectors for Industrial applications)

Hand Protection Protective gloves

Glove material	Breakthrough time	Glove thickness	AUS/NZ Standard	Glove comments
Disposable gloves.	See manufacturers	-	AS/NZS 2161	(minimum requirement)
	recommendations			

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.

Skin and body protection Long sleeved clothing

**Repiratory Protection** Use an AS/NZS 1716 approved respirator if exposure limits are exceeded or if irritation or

other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained in line with AS/NZS 1715 on the use

and maintenance of repiratory protective devices (or AUS/NZ equivalent)

When RPE is used a face piece Fit Test should be conducted

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls Prevent product from entering drains. Do not allow material to contaminate ground water

system.

# **Section 9 - Physical and Chemical Properties**

#### Information on basic physical and chemical properties

Physical State Liquid

Appearance Purple

Odor Characteristic Alcohol-like

Odor Threshold No data available pH Not applicable Melting Point/Range No data available

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Softening Point No data available

**Boiling Point/Range** 78.5 - 80 °C / 173.3 - 176 °F

Flammability (liquid) Highly flammable On basis of test data

Flammability (solid,gas) Not applicable Liquid

Explosion Limits No data available

Flash Point 13.9 °C / 57 °F Method - No information available

Autoignition Temperature
Decomposition Temperature
Viscosity
Water Solubility
Solubility in other solvents

No data available
No data available
No information available
No information available

Partition Coefficient (n-octanol/water)

Componentlog PowEthyl alcohol-0.32Methyl alcohol-0.74Isopropyl alcohol0.05Hematoxylin0.3

Vapor Pressure No data available Density / Specific Gravity No data available

Bulk DensityNot applicableLiquidVapor DensityNo data available(Air = 1.0)

Particle characteristics Not applicable (liquid)

Other information

Explosive Properties Vapors may form explosive mixtures with air

# **Section 10 - Stability and Reactivity**

**Reactivity** None known, based on information available

**Stability** Stable under normal conditions.

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

**Hazardous Polymerization** No information available.

**Hazardous Reactions** No information available.

Conditions to Avoid Heat, flames and sparks, Keep away from open flames, hot surfaces and sources of

ignition.

Incompatible Materials None known.

Hazardous Decomposition Products None under normal use conditions.

# **Section 11 - Toxicological Information**

#### **Acute Effects**

#### Information on likely routes of exposure

### **Product Information**

**Inhalation** Harmful by inhalation.

Eyes Not an expected route of exposure.

Skin Harmful in contact with skin.

**Ingestion** Harmful if swallowed.

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#### Numerical measures of toxicity

(a) acute toxicity;

Oral Category 4

**Dermal** Based on available data, the classification criteria are not met

Inhalation Category 4

### Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethyl alcohol	LD50 = 7060 mg/kg (Rat)		20000 ppm/10H ( Rat )
Methyl alcohol	LD50 = 1187 - 2769 mg/kg (Rat)	LD50 = 17100 mg/kg ( Rabbit )	LC50 = 128.2 mg/L (Rat) 4 h
Isopropyl alcohol	5045 mg/kg (Rat) 3600 mg/kg (Mouse)	12800 mg/kg (Rat)	72.6 mg/L (Rat) 4 h

(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

	Component	Test method	Test species	Study result
I	Methyl alcohol	OECD Test Guideline 406	guinea pig	non-sensitising
1	67-56-1 ( 4 - 5 )	Guinea Pig Maximisation Test		_
1		(GPMT)		

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; No data available

The table below indicates whether each agency has listed any ingredient as a carcinogen

(g) reproductive toxicity; No data available

Component	Test method	Test species / Duration	Study result
Methyl alcohol	OECD Test Guideline 416	Rat / Inhalation 2 Generation	NOAEC = 1.3 mg/l (air)
67-56-1 (4 - 5)			

(h) STOT-single exposure; Category 2

Results / Target organs Optic nerve

Central nervous system (CNS)

(i) STOT-repeated exposure; No data available

Target Organs No information available.

(j) aspiration hazard; No data available

#### Symptoms / effects, both acute and delayed

Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

# **Section 12 - Ecological Information**

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**Ecotoxicity** 

#### **Aquatic ecotoxicity**

Contains a substance which is:. Toxic to aquatic organisms. The product contains following substances which are hazardous for the environment.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Ethyl alcohol	Fathead minnow (Pimephales promelas) LC50 = 14200 mg/l/96h	EC50 = 9268 mg/L/48h EC50 = 10800 mg/L/24h	EC50 (72h) = 275 mg/l (Chlorella vulgaris)	Photobacterium phosphoreum:EC50 = 34634 mg/L/30 min Photobacterium phosphoreum:EC50 = 35470 mg/L/5 min
Methyl alcohol	Pimephales promelas: LC50 > 10000 mg/L 96h	EC50 > 10000 mg/L 24h		EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min EC50 = 43000 mg/L 5 min
	flow-through	13299 mg/L EC50 = 48 h 9714 mg/L EC50 = 24 h	(Desmodesmus	Photobacterium phosphoreum 5 min

#### **Terrestrial ecotoxicity**

Component	Earthworm	Avian	Honeybees
Ethyl alcohol	Acute toxicity: LC50 0.1 - 1		
	mg/cm2 (Eisenia foetida, 48 h,		
	filter paper)		
Methyl alcohol	Acute toxicity: LC50 > 1 mg/cm2		
	(Eisenia foetida, 48 h, filter		
	paper)		

Persistence and Degradability

No information available

Persistence

Persistence is unlikely, based on information available.

Component	Degradability
Methyl alcohol	DT50 ~ 17.2d
67-56-1 ( 4 - 5 )	>94% after 20d

Degradation in sewage treatment plant

Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

#### **Bioaccumulative Potential**

Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Ethyl alcohol	-0.32	No data available
Methyl alcohol	-0.74	<10 dimensionless
Isopropyl alcohol	0.05	No data available
Hematoxylin	0.3	No data available

### **Mobility**

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. Will likely be mobile in the environment due to its volatility. Disperses rapidly in air

### Other adverse effects

**Endocrine Disruptor Information Persistent Organic Pollutant** 

This product does not contain any known or suspected endocrine disruptors 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 13 - Disposal Considerations**

Waste treatment methods

Waste from Residues/Unused

**Products** 

Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with all federal, E.P.A., state and local regulations. Assure conformity with all applicable regulations.

**Contaminated Packaging** 

Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

Other Information

Disposal agencies or waste contractors must comply with the New Zealand Hazardous Substances (Disposal) Regulations . Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Can be landfilled or incinerated, when in compliance with local regulations.

# **Section 14 - Transport Information**

Component	Hazchem Code
Ethyl alcohol	2YE
64-17-5 ( 85 - 90 )	2Y
Methyl alcohol	2WE
67-56-1 ( 4 - 5 )	
Isopropyl alcohol	1Z
67-63-0 ( 4 - 5 )	

#### NZS 5433:2020

UN-No UN1170
Proper Shipping Name Ethanol solution
Technical Shipping Name Alcoholic Hematoxylin

Hazard Class 3 Packing Group II

IATA

UN-No
Proper Shipping Name
Technical Shipping Name
UN1170
Ethanol solution
Alcoholic Hematoxylin

Hazard Class 3
Packing Group ||

IMDG/IMO

UN-No UN1170
Proper Shipping Name Ethanol solution
Technical Shipping Name Alcoholic Hematoxylin

Hazard Class 3
Packing Group ||

Environmental hazards No hazards identified

Transport in bulk according to Annex II of MARPOL 73/78 and the

Not applicable, packaged goods

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**IBC Code** 

**Special Precautions**No special precautions required. Please refer to the applicable dangerous goods

regulations for additional information.

Additional information None known

# **Section 15 - Regulatory Information**

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

HSNO Approval Number	HSR002596

#### **National Regulations**

There are no applicable tolerable exposure limits or environmental exposure limits according to the EPA Controls for Hazardous Substances

#### Certified handlers, tracking and controlled substance license requirements

Certified handlers are required for some substances. This includes substances requiring a controlled substance license, and most explosives, vertebrates toxic agents, and certain fumigants. Acutely toxic substances which are a Category 1 or 2, such as pesticides also require Certified handlers. Please check the Health and Safety at Work Act 2015 for further information. Tracking is required for some highly hazardous substances. These substances need to be under the control of an appropriately trained person or appropriately secured. Please check the Health and Safety at Work Act 2015 for further information.

#### Prohibition or notification/licensing requirements

Shown below are details of specific prohibition/notifications or licencing requirements when they apply.

### International Regulations

Ozone Depletion Potential This product does not contain any known or suspected substance

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

Rotterdam Convention (PIC) Not applicable

Component	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	IMDG Marine Pollutant
Methyl alcohol	500 tonne	5000 tonne	

# Authorisation/Restrictions according to EU REACH

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	· · · · · · · · · · · · · · · · · · ·
Methyl alcohol	-	Use restricted. See item 69. (see link for restriction details) Use restricted. See item 75. (see link for restriction details)	_ `
Isopropyl alcohol	-	Use restricted. See item 75. (see link for restriction details)	-

https://echa.europa.eu/substances-restricted-under-reach

#### **International Inventories**

New Zealand (NZIoC), Australia (AICS), Europe (EINECS/ELINCS/NLP), Korea (KECL), China (IECSC), Taiwan (TCSI), Japan (ISHL), Canada (DSL/NDSL), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Component CAS No NZIOC AICS EINECS ELINCS	NLP	KECL	IECSC	TCSI
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	Ethyl alcohol	64-17-5	Χ	Х	200-578-6	-	-	KE-13217	Χ	Х
	Methyl alcohol	67-56-1	X	Х	200-659-6	-	-	KE-23193	X	X
	Isopropyl alcohol	67-63-0	Х	Х	200-661-7	-	-	KE-29363	Х	Х
Г	Hematoxylin	517-28-2	X	Х	208-237-3	-	-	KE-10609	X	Х

Component	CAS No	TSCA TSCA Inventory notification -		DSL	NDSL	PICCS	ISHL	ENCS
			Active-Inactive					
Ethyl alcohol	64-17-5	Х	ACTIVE	Х	-	Х	Х	Х
Methyl alcohol	67-56-1	X	ACTIVE	Х	-	Х	Х	Х
Isopropyl alcohol	67-63-0	X	ACTIVE	Х	-	Х	Х	Х
Hematoxylin	517-28-2	X	ACTIVE	Х	-	Х	Х	Х

Legend: X - Listed '-' - Not Listed KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

### **Section 16 - Other Information**

# This safety data sheet complies with the requirements of the EPA Hazardous Substances (Hazard Classification) Notice 2020 and WorkSafe New Zealand Regulations

#### Legend

NZIoC - New Zealand Inventory of Chemicals

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

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

IECSC - Chinese Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer NZS 5433:2020 - Transport of Dangerous Goods on Land

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

 $\ensuremath{\mathsf{MARPOL}}$  - International Convention for the Prevention of Pollution from Ships

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50% WEL - Workplace Exposure Limit DNEL - Derived No Effect Level

**POW** - Partition coefficient Octanol:Water **vPvB** - very Persistent, very Bioaccumulative

VOC - (Volatile Organic Compound)

AICS - Australian Inventory of Chemical Substances

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

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

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

CAS - Chemical Abstracts Service

ACGIH - American Conference of Governmental Industrial Hygienists

PNEC - Predicted No Effect Concentration

**OECD** - Organisation for Economic Co-operation and Development **IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

 $\ensuremath{\mathbf{ADG}}$  - Australian Code for the Transport of Dangerous Goods by Road and Rail

LC50 - Lethal Concentration 50%
ATE - Acute Toxicity Estimate

RPE - Respiratory Protective Equipment

NOEC - No Observed Effect Concentration

**BCF** - Bioconcentration factor

PBT - Persistent, Bioaccumulative, Toxic

#### Key literature references and sources for data

HSNO classifications provided in the New Zealand Chemical Classification Information Database (CCID).

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

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

EPA Guide to classifying hazardous substances in New Zealand

EPA - Assigning a product to an existing HSNO approval guide

### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards On basis of test data
Health Hazards Calculation method
Environmental hazards Calculation method

#### **Training Advice**

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Revision Date 14-Jul-2023

Revision Summary Update to GHS format

**Disclaimer** 

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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**

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