

Australian statement of hazardous nature : Classified as hazardous according to criteria of Safe Work Australia

## Section 1 - Identification

**Product Name**

Alcian blue solution

**Product Code**

**FNNFF110, FNNALCBUE1A**

**Address**

ThermoFisher Scientific Australia Pty Ltd  
 5 Caribbean Drive, Scoresby  
 VICTORIA 3179, Australia

**Emergency Tel.**

**CHEMTREC®**  
**03 9757 4559 or +613 9757 4559**

**Telephone / Fax Numbers**

Tel: 1300 735 292  
 Fax: 1800 067 639

**E-mail address**

ANZinfo@thermofisher.com

**Recommended Use**

Laboratory chemicals.

**Uses advised against**

This product contains one or more substance(s) on the Illicit Drug Precursors/Reagents list. Verify requirements related to using, handling and storing these substances. This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction. This product does not contain any substance(s) listed on the voluntary National Code of Practice for Chemicals of Security Concern.

## Section 2 - Hazard(s) Identification

Classification under Safe Work Australia

Classified as hazardous according to criteria of Safe Work Australia

**Physical hazards**

No hazards identified

**Health hazards**

Skin Corrosion/Irritation  
 Serious Eye Damage/Eye Irritation  
 Skin Sensitization

Category 2  
 Category 1  
 Sub-category 1A

**Environmental hazards**

No hazards identified

Label Elements



Corrosion

**Signal Word**
**Danger**
**Hazard Statements**

H315 - Causes skin irritation  
H318 - Causes serious eye damage

**Precautionary Statements**

P264 - Wash face, hands and any exposed skin thoroughly after handling  
P271 - Use only outdoors or in a well-ventilated area  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P310 - Immediately call a POISON CENTER or doctor  
P362 + P364 - Take off contaminated clothing and wash it before reuse  
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed  
P501 - Dispose of contents/ container to an approved waste disposal plant

**Other information**

This product does not contain any known or suspected endocrine disruptors

## Section 3 - Composition and Information on Ingredients

Component	CAS No	Weight %
Water	7732-18-5	95 - 97
Acetic acid	64-19-7	2 - 3
5-Chloro-2-methyl-3-isothiazolone	26172-55-4	< 1.0
2-Methyl-3-isothiazolone	2682-20-4	< 1.0
Copper(4+), [[[N,N',N'',N'''-[29H,31H-phthalocyaninetetrayltetrakis(methylenethio[(dimethylamino)methylidene]]tetrakis[N-methylmethanaminiumato]](2-)-N29,N30,N31,N32]-, tetrachloride	33864-99-2	<1

## Section 4 - First Aid Measures

<b>Inhalation</b>	Remove to fresh air. Get medical attention immediately if symptoms occur. If not breathing, give artificial respiration.
<b>Ingestion</b>	Do NOT induce vomiting. Get medical attention.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Self-Protection of the First Aider</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.
<b>First Aid Facilities</b>	Eyewash, safety shower and washroom.
<b>Most important symptoms and effects</b>	Causes eye burns. Causes severe eye damage.
<b>Notes to Physician</b>	Treat symptomatically.

## Section 5 - Fire Fighting Measures

### Suitable Extinguishing Media

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

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

No information available.

### Hazardous Decomposition Products

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

### Specific Hazards Arising from the Chemical

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

### 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

### Emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing.

### Environmental Precautions

Do not flush into surface water or sanitary sewer system.

### Methods for Containment and Clean Up

#### Clean-up methods - small spillage

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

#### Clean-up methods - large spillage

Typically only supplied in small quantities as packaged goods.

If extremely toxic or used in larger quantities ensure a spillage action plan is in place. Evacuate area. Control the source and/or contain the spill if safe and able to do so. Use temporary diking, sand bags, dry sand, earth or proprietary booms/absorbent pads if available. Obtain advice on containment, neutralisation and clean-up from local emergency responders.

### 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. Do not breathe mist/vapors/spray. Avoid contact with skin, eyes or clothing.

### Conditions for Safe Storage, Including any Incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place.

AS/NZS 2243.10:2004, Safety in laboratories - Storage of chemicals

## Section 8 - Exposure Controls and Personal Protection

### Exposure limits

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.

**UK** - EH40/2005 Work Exposure Limits, Fourth edition. Published 2020.

**DE** - MAK and BAT values of Hazardous Chemical Compounds in the Work Area. Published by German Research Foundation on July 1, 2011

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

Component	Australia	New Zealand WEL	ACGIH TLV	The United Kingdom	Germany
Acetic acid	STEL: 15 ppm STEL: 37 mg/m <sup>3</sup> TWA: 10 ppm TWA: 25 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 25 mg/m <sup>3</sup> STEL: 15 ppm STEL: 37 mg/m <sup>3</sup>	TWA: 10 ppm STEL: 15 ppm	STEL: 37 mg/m <sup>3</sup> STEL: 15 ppm TWA: 10 ppm TWA: 25 mg/m <sup>3</sup>	TWA: 10 ppm (8 Stunden). AGW - exposure factor 2 TWA: 25 mg/m <sup>3</sup> (8 Stunden). AGW - exposure factor 2 TWA: 10 ppm (8 Stunden). MAK TWA: 25 mg/m <sup>3</sup> (8 Stunden). MAK Höhepunkt: 20 ppm Höhepunkt: 50 mg/m <sup>3</sup>
5-Chloro-2-methyl-3-isothiazolone					TWA: 0.2 mg/m <sup>3</sup> (8 Stunden). MAK mixture in ratio 3:1 with CAS 2682-20-4 Höhepunkt: 0.4 mg/m <sup>3</sup>
2-Methyl-3-isothiazolone					TWA: 0.2 mg/m <sup>3</sup> (8 Stunden). MAK mixture in ratio 1:3 with CAS 26172-55-4 Höhepunkt: 0.4 mg/m <sup>3</sup>
Copper(4+), [[N,N',N'',N''']-[29H,31H-phthalocyaninetetrakis(methylene thio[(dimethylamino)methylidene]]]tetrakis[N-methylmethanaminumato]](2-)-N29,N30,N31,N32]-, tetrachloride			TWA: 1 mg/m <sup>3</sup>	STEL: 2 mg/m <sup>3</sup> 15 min TWA: 1 mg/m <sup>3</sup> 8 hr	

#### Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

#### Exposure Controls

##### Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

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

#### Personal protective equipment

##### Eye Protection

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 recommendations	-	AS/NZS 2161	(minimum requirement)

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

#### Respiratory 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 respiratory 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. Local authorities should be advised if significant spillages cannot be contained.

## Section 9 - Physical and Chemical Properties

### Information on basic physical and chemical properties

<b>Appearance</b>	Blue	
<b>Physical State</b>	Liquid	
<b>Odor</b>	vinegar-like	
<b>Odor Threshold</b>	No data available	
<b>pH</b>	2.5	
<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	<b>Method -</b> No information available
<b>Evaporation Rate</b>	No data available	
<b>Flammability (solid,gas)</b>	Not applicable	Liquid
<b>Explosion Limits</b>	No data available	
<b>Vapor Pressure</b>	No data available	
<b>Vapor Density</b>	No data available	(Air = 1.0)
<b>Specific Gravity / Density</b>	No data available	
<b>Bulk Density</b>	Not applicable	Liquid
<b>Water Solubility</b>	No information available	
<b>Solubility in other solvents</b>	No information available	
<b>Partition Coefficient (n-octanol/water)</b>		
<b>Component</b>	<b>log Pow</b>	
Acetic acid	-0.2	
5-Chloro-2-methyl-3-isothiazolone	-0.71 - 0.75	
2-Methyl-3-isothiazolone	-0.26	
	-0.34	
	-0.28	
<b>Autoignition Temperature</b>	No data available	
<b>Decomposition Temperature</b>	No data available	
<b>Viscosity</b>	No data available	
<b>Explosive Properties</b>	No information available	
<b>Oxidizing Properties</b>	No information available	

### Other information

## Section 10 - Stability and Reactivity

<b>Reactivity</b>	None known, based on information available
<b>Stability</b>	Stable under normal conditions.
<b>Conditions to Avoid</b>	Incompatible products, Excess heat.
<b>Incompatible Materials</b>	Strong oxidizing agents, Strong acids, Strong bases.
<b>Hazardous Decomposition Products</b>	Thermal decomposition can lead to release of irritating gases and vapors.
<b>Hazardous Polymerization</b>	No information available.

## Section 11 - Toxicological Information

### Information on Toxicological Effects

**Product Information** No acute toxicity information is available for this product

**(a) acute toxicity;**

**Oral**

Based on available data, the classification criteria are not met

**Dermal**

Based on available data, the classification criteria are not met

**Inhalation**

Based on available data, the classification criteria are not met

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	-	-	-
Acetic acid	3310 mg/kg ( Rat )	-	> 40 mg/L ( Rat ) 4 h
5-Chloro-2-methyl-3-isothiazolone	LD50 = 481 mg/kg ( Rat )		LC50 = 1.23 mg/L ( Rat ) 4 h
2-Methyl-3-isothiazolone	LD50 232 - 249 mg/kg ( Rat ) LD50 = 120 mg/kg ( Rat )	LD50 = 200 mg/kg ( Rabbit )	LC50 = 0.11 mg/L ( Rat ) 4 h

**(b) skin corrosion/irritation;** Category 2

**(c) serious eye damage/irritation;** Category 1

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

**Respiratory**

No data available

**Skin**

No data available

**(e) germ cell mutagenicity;** No data available

Mutagenic effects have occurred in humans

**(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; No data available

**Other Adverse Effects** Tumorigenic effects have been reported in experimental animals.

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

## Section 12 - Ecological Information

### Ecotoxicity effects

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

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Acetic acid	Pimephales promelas: LC50 = 88 mg/L/96h Lepomis macrochirus: LC50 = 75 mg/L/96h	EC50 = 95 mg/L/24h	-	Photobacterium phosphoreum: EC50 = 8.8 mg/L/15 min Photobacterium phosphoreum: EC50 = 8.8 mg/L/25 min Photobacterium phosphoreum: EC50 = 8.8 mg/L/5 min
5-Chloro-2-methyl-3-isothiazolone	LC50: = 1.6 mg/L, 96h semi-static (Oncorhynchus mykiss)	EC50: = 4.71 mg/L, 48h (Daphnia magna) EC50: 0.12 - 0.3 mg/L, 48h Flow through (Daphnia magna) EC50: 0.71 - 0.99 mg/L, 48h Static (Daphnia magna)	EC50: 0.03 - 0.13 mg/L, 96h static (Pseudokirchneriella subcapitata) EC50: 0.11 - 0.16 mg/L, 72h static (Pseudokirchneriella subcapitata)	EC50 = 5.7 mg/L 16 h
2-Methyl-3-isothiazolone	LC50: 0.07 mg/L/96h (Oncorhynchus mykiss)	EC50: 0.18 mg/L/48h		

### Persistence and Degradability

No information available

#### Degradation in sewage treatment plant

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

### Bioaccumulative Potential

No information available

Component	log Pow	Bioconcentration factor (BCF)
Acetic acid	-0.2	No data available
5-Chloro-2-methyl-3-isothiazolone	-0.71 - 0.75	No data available
2-Methyl-3-isothiazolone	-0.26 -0.34 -0.28	No data available

### Mobility

### Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

### Persistent Organic Pollutant

This product does not contain any known or suspected substance

### Ozone Depletion Potential

This product does not contain any known or suspected substance

## Section 13 - Disposal Considerations

### 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.

### Other Information

Chemical wastes should be disposed through a licensed commercial waste collection service. Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains.

## Section 14 - Transport Information

**IMDG/IMO**

Not regulated

**ADG**

Not regulated

Component	Hazchem Code
Acetic acid 64-19-7 ( 2 - 3 )	2P 2R

**IATA**

Not regulated

**Environmental hazards**

No hazards identified

**Special Precautions**

No special precautions required

**Additional information**

None known

## Section 15 - Regulatory Information

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

**National Regulations****Australia**

See section 8 for national exposure control parameters.

**Standard for the Uniform Scheduling of Medicines and Poisons**

Classified as a scheduled poison according to the Standard for Uniform Scheduling of Medicines and Poisons.

Component	Standard for the Uniform Scheduling of Medicines and Poisons
Acetic acid - 64-19-7	Schedule 2 listed Schedule 5 listed - except its salts and derivatives;in preparations except when included in Schedule 2 or 6, or for therapeutic use Schedule 6 listed - except its salts and derivatives;except when included in Schedule 2
5-Chloro-2-methyl-3-isothiazolone - 26172-55-4	Schedule 6 listed - except: in rinse-off cosmetic preparations or therapeutic goods intended for topical rinse-off application containing <=0.0015% of Methylchloroisothiazolinone and Methylisothiazolinone in total, or in other preparations that are not intended for direct application to the skin containing <=0.1% of Methylchloroisothiazolinone and Methylisothiazolinone in total
2-Methyl-3-isothiazolone - 2682-20-4	Schedule 6 listed - except: in rinse-off cosmetic preparations or therapeutic goods intended for topical rinse-off application containing <=0.0015% of Methylisothiazolinone, or in other preparations that are not intended for direct application to the skin containing <=0.1% of Methylisothiazolinone
Copper(4+), [[N,N',N'',N'''-[29H,31H-phthalocyaninetetra yltetrakis[methylenethio[(dimethylamino)me thylidyne]]]tetrakis[N-methylmethanaminium ato]](2-)-N29,N30,N31,N32]-, tetrachloride - 33864-99-2	Schedule 4 listed - for human use except: when separately specified in these Schedules, or in preparations for human internal use containing <=5 mg of Copper per recommended daily dose, or in other preparations containing <=5% of Copper compounds Schedule 5 listed - in animal feed additives except in preparations containing <=1% of Copper Schedule 6 listed - except: (a) when separately specified in these Schedules, (b) in preparations for human internal use containing <=5 mg of Copper per recommended daily dose, or (c) pigments where the solubility of the Copper compounds in water is <=1 g/L, or (d) in feed additives containing <=1% of Copper, or (e) in other preparations containing <=5% of Copper compounds

**Australian Industrial Chemicals Introduction Scheme (AICIS)**

Component	Australian Industrial Chemicals Introduction Scheme (AICIS)	Additional information
Water - 7732-18-5	Present	-
Acetic acid - 64-19-7	Present	-
5-Chloro-2-methyl-3-isothiazolone - 26172-55-4	Present	-



2-Methyl-3-isothiazolone - 2682-20-4	Present	-
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**Australian - Illicit Drug Precursors/Reagents Substance List**

This product contains one or more substance(s) on the Illicit Drug Precursors/Reagents list. Verify requirements related to using, handling and storing these substances.

**Chemicals of Security Concern**

This product does not contain any substance(s) listed on the voluntary National Code of Practice for Chemicals of Security Concern

Component	Australian - Illicit Drug Precursors/Reagents Substance List	Chemicals of Security Concern
Acetic acid - 64-19-7	Category 3	

**Legend**

Category 3 - Chemicals and apparatus that may be used in the illicit production of drugs. Purchases from this list should alert companies or organizations to seek further indicators of any suspicious orders or enquiries. No official reporting is required for items on this list unless considered warranted

**National pollutant inventory** Subject to reporting requirements

Component	National pollutant inventory
Acetic acid - 64-19-7	10 tonne/yr. Threshold category 1

**Prohibition or notification/licensing requirements**

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

This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction.

**International Inventories**

Component	AICS	NZIoC	EINECS	ELINCS	TSCA	DSL	NDSL	PICCS	ENCS	ISHL	IECSC	KECL
Water	X	X	231-791-2	-	X	X	-	X	X		X	KE-35400
Acetic acid	X	X	200-580-7	-	X	X	-	X	X	X	X	X
5-Chloro-2-methyl-3-isothiazolone	X	X	247-500-7	-	X	X	-	X	X	X	X	KE-05736
2-Methyl-3-isothiazolone	X	X	220-239-6	-	X	X	-	X	X	X	X	KE-24316
Copper(4+), [[N,N',N'',N''']-[29H,31H]-phthalocyaninetetrayltetrakis[methylenethio[[dimethylamino)methyldyne]]]tetrakis[N-methylmethanaminiumato]](2-)-N29,N30,N31,N32]-, tetrachloride	-	X	251-705-7	-	X	X	-	-	X	X	-	-

**Legend:** X - Listed. '-' - Not Listed. PMN - Indicates a commenced PMN substance. SP - Indicates a substance that is identified in a proposed SNUR. **KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

**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

**Basel convention on the control of transboundary movements of hazardous wastes and their disposal**

Take note that wastes may be subject to export, import, or transit controls pursuant to the Basel convention and/or local regulations implementing the Basel convention.

Component	Basel Convention (Hazardous Waste)	Australian Hazardous Waste Act - Categories of Wastes to Be Controlled
Acetic acid - 64-19-7	Annex I - Y34	Y34 solid or solution
Copper(4+), [[[N,N',N'',N''']-[29H,31H-phthalocyaninetetra yl]tetrakis[methylenethio[(dimethylamino)meth thylidyne]]]tetrakis[N-methylmethanaminium ato]](2-)-N29,N30,N31,N32]-, tetrachloride - 33864-99-2	Annex I - Y22	Y22

Component	CAS No	OECD HPV	Restriction of Hazardous Substances (RoHS)	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements
Water	7732-18-5	Listed	Not applicable	Not applicable	Not applicable
Acetic acid	64-19-7	Listed	Not applicable	Not applicable	Not applicable
5-Chloro-2-methyl-3-isothiazolone	26172-55-4	Listed	Not applicable	Not applicable	Not applicable
2-Methyl-3-isothiazolone	2682-20-4	Listed	Not applicable	Not applicable	Not applicable
Copper(4+), [[[N,N',N'',N''']-[29H,31H-phthalocyaninetetra yl]tetrakis[methylenethio[(dimethylamino)meth thylidyne]]]tetrakis[N-methylmethanaminium ato]](2-)-N29,N30,N31,N32]-, tetrachloride	33864-99-2	Not applicable	Not applicable	Not applicable	Not applicable

**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	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Acetic acid	-	Use restricted. See entry 75. (see link for restriction details)	-
2-Methyl-3-isothiazolone	-	Use restricted. See entry 75. (see link for restriction details)	-

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

## Section 16 - Other Information

**Legend**

**AICS** - Australian Inventory of Chemical Substances  
**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - 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  
**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association  
**MARPOL** - International Convention for the Prevention of Pollution from Ships

**NZIoC** - New Zealand Inventory of Chemicals  
**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  
**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code  
**ADG** - Australian Code for the Transport of Dangerous Goods by Road and Rail

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**NZS 5433:2020** - Transport of Dangerous Goods on Land

**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)

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

**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

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

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

#### Training Advice

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

#### Revision Date

12-Mar-2025

#### Revision Summary

Update to GHS format.

**This Safety Data Sheet (SDS) is prepared in accordance to and complies with the requirements of Safe Work Australia - Work Health and Safety Regulations (WHS Regulations).**

#### 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