



<b>Precautionary statement(s)</b>	
<b>Prevention</b>	Wash thoroughly after handling. Wear eye protection/face protection. Wear protective gloves.
<b>Response</b>	IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
<b>Storage</b>	Store away from incompatible materials.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Other hazards which do not result in classification</b>	None known.
<b>Supplemental information</b>	3% of the mixture consists of component(s) of unknown acute dermal toxicity. 7% of the mixture consists of component(s) of unknown acute inhalation toxicity. 4.7% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 4.7% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.
	The classified hazards shown on this SDS are associated with the product concentrate. These hazards are not expected under recommended use conditions and dilution.

### 3. Composition/information on ingredients

#### Mixture

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
MONOETHANOLAMINE	141-43-5	5 - < 10
TRIAZINETRIETHANOL	4719-04-4	5 - < 10
Other components below reportable levels		80 - < 90

The exact percentages of hazardous ingredients have been withheld as a trade secret.

### 4. First-aid measures

#### Description of necessary first aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist. Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
<b>Skin contact</b>	Rinse skin with water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth thoroughly. Drink 1 or 2 glasses of water. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.
<b>Personal protection for first-aid responders</b>	If exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance.
<b>Symptoms caused by exposure</b>	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation.
<b>Medical attention and special treatment</b>	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.

### 5. Fire-fighting measures

#### Extinguishing media

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable extinguishing media</b>	Not applicable, non-combustible.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for fire fighters</b>	Wear suitable protective equipment.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Hazchem code</b>	2X
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

**Specific methods** Use standard firefighting procedures and consider the hazards of other involved materials. In the event of fire and/or explosion do not breathe fumes.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**For emergency responders** Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

**Environmental precautions** Contact local authorities in case of spillage to drain/aquatic environment. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

**Methods and materials for containment and cleaning up** Local authorities should be advised if significant spillages cannot be contained. This product is miscible in water. Clean up in accordance with all applicable regulations.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

## 7. Handling and storage

**Precautions for safe handling** Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities** Store in tightly closed container. If frozen, product may separate. Thaw completely at room temperature and stir thoroughly prior to use. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls and personal protection

**Control parameters** Follow standard monitoring procedures.

### Occupational exposure limits

#### Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)

Components	Type	Value
MONOETHANOLAMINE (CAS 141-43-5)	STEL	15 mg/m <sup>3</sup>
		6 ppm
	TWA	7.5 mg/m <sup>3</sup> 3 ppm

#### US. ACGIH Threshold Limit Values

Components	Type	Value
MONOETHANOLAMINE (CAS 141-43-5)	STEL	6 ppm
	TWA	3 ppm

#### UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
MONOETHANOLAMINE (CAS 141-43-5)	STEL	7.6 mg/m <sup>3</sup>
		3 ppm
	TWA	2.5 mg/m <sup>3</sup> 1 ppm

**Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)**

Components	Type	Value	Form
MONOETHANOLAMINE (CAS 141-43-5)	TWA	0.51 mg/m <sup>3</sup>	Vapor and aerosol.
		0.2 ppm	Vapor and aerosol.

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.
<b>Individual protection measures, for example personal protective equipment (PPE)</b>	
<b>Eye/face protection</b>	Do not get in eyes. Wear safety glasses with side shields (or goggles). Eye wash fountain is recommended.
<b>Skin protection</b>	
<b>Hand protection</b>	Nitrile gloves are recommended.
<b>Other</b>	Wear appropriate chemical resistant clothing.
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>Hygiene measures</b>	When using, do not eat, drink or smoke. Do not get in eyes, on skin, on clothing. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

<b>Appearance</b>	CLEAR
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Not available.
<b>Odor</b>	CHEMICAL
<b>Odor threshold</b>	Not available.
<b>pH</b>	11.8
<b>Melting point/freezing point</b>	< 32 °F (< 0 °C) estimated
<b>Initial boiling point and boiling range</b>	212 °F (100 °C) estimated
<b>Flash point</b>	Not Applicable
<b>Evaporation rate</b>	Like water when diluted
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	100 % Water Miscible
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.

**Decomposition temperature** Not available.

**Viscosity** Not available.

**Other physical and chemical parameters**

**Explosive properties** Not explosive.

**Oxidizing properties** Not oxidizing.

**pH in aqueous solution** 11.0 @ 2%

**Specific gravity** 1.040

## 10. Stability and reactivity

**Reactivity** Reacts violently with strong acids. This product may react with oxidizing agents.

**Chemical stability** Material is stable under normal conditions.

**Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.

**Conditions to avoid** Contact with incompatible materials. Do not mix with other chemicals.

**Incompatible materials** Acids. Oxidizing agents. Do not add sodium nitrite or other nitrosating agents which may form cancer causing nitrosamines.

**Hazardous decomposition products** Smoke, fumes, oxides of nitrogen, and oxides of carbon

## 11. Toxicological information

### Information on possible routes of exposure

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

**Skin contact** Causes skin irritation.

**Eye contact** Causes serious eye irritation.

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

**Symptoms related to exposure** Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Direct contact with eyes may cause temporary irritation. Skin irritation.

### Acute toxicity

Components	Species	Test Results
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MONOETHANOLAMINE (CAS 141-43-5)

**Acute**

**Dermal**

LD50	Rabbit	1025 mg/kg
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TRIAZINETRIETHANOL (CAS 4719-04-4)

**Acute**

**Dermal**

*Liquid*

LD50	Rat	4000 mg/kg
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**Oral**

*Liquid*

LD50	Rat	1000 mg/kg
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**Skin corrosion/irritation** Causes skin irritation.

**Serious eye damage/irritation** Causes serious eye irritation.

### Respiratory or skin sensitization

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** Not classified.

<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not an aspiration hazard.
<b>Chronic effects</b>	Prolonged inhalation may be harmful. May be harmful if absorbed through skin.
<b>Other information</b>	The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

## 12. Ecological information

**Ecotoxicity** Toxic to aquatic life.

Components		Species	Test Results
MONOETHANOLAMINE (CAS 141-43-5)			
<b>Aquatic</b>			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	114 - 196 mg/l, 96 hours
<i>Acute</i>			
Crustacea	EC50	Daphnia	65 mg/l, 48 hours ECHA
TRIAZINETRIETHANOL (CAS 4719-04-4)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Daphnia	11.9 mg/l, 48 hours ECHA
Fish	LC50	Fish	16 - 240 mg/l, 96 hours ECHA

**Persistence and degradability** No data is available on the degradability of any ingredients in the mixture.

### Bioaccumulative potential

#### Partition coefficient n-octanol / water (log Kow)

MONOETHANOLAMINE	-1.31
TRIAZINETRIETHANOL	-2

**Mobility in soil** This product is miscible in water.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

**Disposal methods** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Residual waste** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

### ADG

Not regulated as dangerous goods.

### RID

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.

## 15. Regulatory information

### Safety, health and environmental regulations

## National regulations

This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals.

### **Australia Medicines & Poisons Appendix A**

Poisons schedule number not allocated.

### **Australia Medicines & Poisons Appendix B**

Poisons schedule number not allocated.

### **Australia Medicines & Poisons Appendix D**

Poisons schedule number not allocated.

### **Australia Medicines & Poisons Appendix E**

MONOETHANOLAMINE (CAS 141-43-5)

### **Australia Medicines & Poisons Appendix F**

MONOETHANOLAMINE (CAS 141-43-5)

### **Australia Medicines & Poisons Appendix G**

Poisons schedule number not allocated.

### **Australia Medicines & Poisons Appendix H**

Poisons schedule number not allocated.

### **Australia Medicines & Poisons Appendix I**

Poisons schedule number not allocated.

### **Australia Medicines & Poisons Appendix J**

Poisons schedule number not allocated.

### **Australia Medicines & Poisons Appendix K**

Poisons schedule number not allocated.

### **Australia Medicines & Poisons Schedule 10**

Poisons schedule number not allocated.

### **Australia Medicines & Poisons Schedule 2**

Poisons schedule number not allocated.

### **Australia Medicines & Poisons Schedule 3**

Poisons schedule number not allocated.

### **Australia Medicines & Poisons Schedule 4**

MONOETHANOLAMINE (CAS 141-43-5)

### **Australia Medicines & Poisons Schedule 5**

MONOETHANOLAMINE (CAS 141-43-5)

### **Australia Medicines & Poisons Schedule 6**

MONOETHANOLAMINE (CAS 141-43-5)

### **Australia Medicines & Poisons Schedule 7**

Poisons schedule number not allocated.

### **Australia Medicines & Poisons Schedule 8**

Poisons schedule number not allocated.

### **Australia Medicines & Poisons Schedule 9**

Poisons schedule number not allocated.

### **High Volume Industrial Chemicals (HVIC)**

MONOETHANOLAMINE (CAS 141-43-5)

1000 - 9999 TONNES See the regulation for additional information.

### **Importation of Ozone Depleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10)**

Not listed.

### **National Pollutant Inventory (NPI) substance reporting list**

Not listed.

### **Prohibited Carcinogenic Substances**

Not regulated.

### **Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)**

Not listed.

### **Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)**

Not listed.

### **Restricted Carcinogenic Substances**

Not regulated.

## International regulations

**Stockholm Convention**

Not applicable.

**Rotterdam Convention**

Not applicable.

**Kyoto protocol**

Not applicable.

**Montreal Protocol**

Not applicable.

**Basel Convention**

Not applicable.

**International Inventories**

Country(s) or region	Inventory name	On inventory or exempt (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**16. Other information**

**Issue date** 01-10-2017

**Revision date** 05-11-2022

**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.

**Revision information** This document has undergone significant changes and should be reviewed in its entirety.