

Safety Data Sheet TRIS(HYDROXYMETHYL)METHYLAMINE

SDS no. RF9339VF • Version 1.0 • Date of issue: 2024-10-16

SECTION 1: Identification

GHS Product identifier

Product name TRIS(HYDROXYMETHYL)METHYLAMINE

Other means of identification

Product Product Code

TRIS(HYDROXYMETHYL)METHYLAMINE AF TA034

TRIS(HYDROXYMETHYL)METHYLAMINE LR TL034

Tris buffer, Tris(hydroxymethyl)aminomethane, Trimethylol amino methane, THAM, Trisamine, Trometamol, Tromethane, 2-Amino-2 (hydroxymethyl)-propane-1,3-diol

Recommended use of the chemical and restrictions on use

In the synthesis of surface-active agents, vulcanization accelerators, pharmaceuticals. As emulsifying agent for cosmetic creams and lotions, mineral oil and paraffin wax emulsions, leather dressings, textile specialties. polishes, cleaning compounds, so-called soluble oils. Absorbent for acidic gases. Biological buffer; laboratory reagent.

Supplier's details

Name ChemSupply Australia Pty Ltd
Address 38-50 Bedford Street
5013 Gillman South Australia
Australia

Telephone 08 8440 2000
email www.chemsupply.com.au

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as non-Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

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GHS classification in accordance with: UN GHS revision 7

Not a hazardous substance or mixture.

GHS label elements, including precautionary statements

Not a hazardous substance or mixture.

Other hazards which do not result in classification

Not a hazardous substance or mixture.

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight: 121.14

Components either not classified as Hazardous under the GHS, or below cut-off concentrations to be classified as Hazardous.

Components

Component	CAS no.	Concentration
Tris (EC no.: 201-064-4)	77-86-1	<= 100 % (weight)
CLASSIFICATIONS: No data available. HAZARDS: No data available.		

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice	First Aid Facilities: Maintain eyewash fountain in work area.
If inhaled	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.
In case of skin contact	Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. Seek medical advice if effects persist.
In case of eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical advice if effects persist.
If swallowed	Rinse mouth thoroughly with water immediately. Do not induce vomiting. Seek medical advice if effects persist.

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

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Small fire: Use dry chemical, CO₂, water spray or foam.

Large fire: Use water spray, fog or foam.

Specific hazards arising from the chemical

Hazards from Combustion Products: May liberate toxic fumes in fire (oxides of nitrogen).

May burn but do not ignite readily.

Special protective actions for fire-fighters

Wear SCBA and structural firefighter's uniform.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms.

Wear protective clothing specified for normal operations (see Section 8)

Methods and materials for containment and cleaning up

Sweep up (avoid generating dust) and remove to a suitable, clearly labelled container for disposal in accordance with local regulations.

Avoid release to the environment.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid generation or accumulation of dusts. Use in well ventilated areas away from all ignition sources. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid prolonged or repeated contact with skin and eyes .

Conditions for safe storage, including any incompatibilities

Store away from oxidizing agents. Store in a cool, dry place. Store in well ventilated area. Store away from sources of heat or ignition. Keep containers closed at all times.

Store at 15 to 25 °C.

Corrosive to copper, brass, aluminium.

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls

In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Recommendation: rubber or plastic gloves.

Body protection

Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

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Respiratory protection

Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Solid
Appearance	White to colourless crystals.
Color	No data available.
Odor	Slightly characteristic.
Odor threshold	No data available.
Melting point/freezing point	169 - 172 °C
Boiling point or initial boiling point and boiling range	219 - 220 °C (13.3 hPa)
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	10.2 - 10.6 (6 g/l, H ₂ O, 20 °C)
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Soluble. Solubility in Organic Solvents: Soluble in ethylene glycol, anhydrous ethanol, 95% ethanol, DMF. Slightly soluble in acetone, ethyl acetate, olive oil, cyclohexane, chloroform, carbon tetrachloride.
Partition coefficient n-octanol/water (log value)	log P(o/w): -2.31
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 1.353
Relative vapor density	No data available.
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

No data available.

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Hazardous Polymerization: Will not occur.

Conditions to avoid

Heat, direct sunlight, open flames or other sources of ignition. Dust generation. Incompatibles.

Incompatible materials

Oxidizing agents, acids, bases, copper, brass, aluminium, aldehydes.

Hazardous decomposition products

Oxides of carbon, oxides of nitrogen.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Acute Toxicity - Oral: LD50 (rat): 5000 mg/kg

Ingestion: May cause irritation and reddening to the mucous membranes of the mouth, oesophagus, and gastrointestinal tract. Symptoms may include nausea, vomiting, and diarrhea. Large doses may cause weakness, cyanosis, collapse, spasms, muscular symptoms and coma. Risk of aspiration upon vomiting. Effect potentiated by ethanol. Estimated lethal dose: 50 g.

Inhalation: May cause irritation to the mucous membranes and upper respiratory tract. Coughing and shortness of breath may occur.

Skin corrosion/irritation

May cause swelling, redness, and pain. Dermatitis cannot be excluded. Degreasing effect on the skin, possibly followed by secondary inflammation.

Serious eye damage/irritation

Symptoms include redness and pain. Risk of corneal clouding.

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

Specific target organ toxicity (STOT) - single exposure

Not classified based on available information.

Specific target organ toxicity (STOT) - repeated exposure

Not classified based on available information.

Aspiration hazard

Not classified based on available information.

Additional information

Chronic Effects: Prolonged contact of this product may cause skin sensitization and dermatitis.

SECTION 12: Ecological information

Persistence and degradability

Rapidly biodegradable.

Bioaccumulative potential

No bioaccumulation is to be expected ($\log P(o/w) < 1$).

Other adverse effects

Environmental Fate: Behaviour in environmental compartments:

Distribution: $\log P(o/w)$: -2.31

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Sewage disposal

No bioaccumulation is to be expected ($\log P(o/w) < 1$).

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP

Poison Schedule: NS

SECTION 16: Other information

Further information/disclaimer

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)