

Infosafe No™ 3CH8W Issue Date : June 2022 RE-ISSUED by CHEMSUPP

Product Name **1,4-DITHIOTHREITOL**

Classified as hazardous

Section 1 - Identification

Product Identifier 1,4-DITHIOTHREITOL
Company Product Codes / Numbers / Unique Identifiers DL131
Company Name CHEMSUPPLY AUSTRALIA PTY LTD (ABN 19 008 264 211)
Address 38 - 50 Bedford Street GILLMAN
 SA 5013 Australia
Telephone/Fax Number Tel: (08) 8440-2000
Emergency Phone Number CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)
E-mail Address www.chemsupply.com.au

Recommended use of the chemical and restrictions on use Reducing agents for proteins and enzymes, bio-chemical research.

Other Names	<u>Name</u>	<u>Product Code</u>
	DL-DITHIOTHREITOL	

Other Information

ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

Section 2 - Hazard(s) Identification

GHS Classification of the Substance/Mixture Eye Damage/Irritation: Category 2
 Acute Toxicity - Oral: Category 4
 Skin Corrosion/Irritation: Category 2
 Specific target organ toxicity - Single Exposure Category 3

Signal Word WARNING

Hazard Statement (s) H302 Harmful if swallowed.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.

Pictogram (s) Exclamation mark



Precautionary Statement - Prevention P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P264 Wash 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.

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Precautionary Statement – Response	Swallowed P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P330 Rinse mouth.
	Skin P302+P352 IF ON SKIN: Wash with plenty of soap and water. P332+P313 If skin irritation occurs: Get medical advice/attention. P362 Take off contaminated clothing and wash before reuse.
	Inhaled P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. P312 Call a POISON CENTER or doctor/physician if you feel unwell.
	Eyes P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/attention.
Precautionary Statement – Storage	P403+P233 Store in a well-ventilated place. Keep container tightly closed.
Precautionary Statement – Disposal	P501 Dispose of contents/container to an approved waste disposal plant.

Section 3 - Composition and Information on Ingredients

Ingredients	Name	CAS	Proportion
	1,4-DITHIOTHREITOL	3483-12-3	100 %

Section 4 - First Aid Measures

Inhalation	Remove victim to fresh air. If breathing has stopped, apply artificial respiration. If symptoms persist, obtain medical attention.
Ingestion	Wash out mouth with water and obtain medical attention. Never give anything by mouth to an unconscious person. Seek medical advice.
Skin	Remove contaminated clothing and wash affected skin with soap and water. Seek medical advice if effects persist.
Eye	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical attention.
First Aid Facilities	Maintain eyewash fountain and safety shower in work area.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of the patient.
Other Information	For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor at once.

Section 5 - Firefighting Measures

Hazards from Combustion Products	Oxides of carbon, sulfur oxides.
Specific Methods	Small fire: Use dry chemical, CO2, water spray or foam. Large fire: Use water spray, fog or foam. If safe to do so, move undamaged containers from the fire area. Cool containers with flooding quantities of water until well after the fire is out.
Specific Hazards Arising from the Chemical	Combustible material. May burn but do not ignite readily. Containers may explode when heated. Runoff may pollute waterways. Fire or heat may produce irritating, poisonous and/or corrosive gases.
Precautions in connection with Fire	Wear SCBA and structural firefighter's uniform.

Section 6 - Accidental Release Measures

Spills & Disposal	Eliminate all ignition sources (no smoking, flares, sparks or flame) within at least 15m. Do NOT touch or walk through this product. Stop leak if safe to do so. Prevent entry into waterways, drains, confined areas. Prevent dust cloud. Use clean non-sparking tools to collect material and place it into loosely-covered plastic containers for later disposal.
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Personal Precautions SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.
Avoid inhalation and ingestion. Avoid contact with skin, eyes and clothing.

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

Clean-up Methods - Small Spillages Sweep up (avoid generating dust) and using clean non-sparking tools transfer to a clean, suitable, clearly labelled container for disposal in accordance with local regulations.

Environmental Precautions Prevent further leakage or spillage and prevent from entering drains

Section 7 - Handling and Storage

Precautions for Safe Handling Avoid generation or accumulation of dusts. Avoid prolonged or repeated contact with skin and eyes . Use in well ventilated areas away from all ignition sources. In case of insufficient ventilation, wear suitable respiratory equipment. Wash hands and face thoroughly after working with material.

Conditions for safe storage, including any incompatibilities Store away from sources of heat or ignition. Store away from oxidizing agents. Store in a cool, dry place. Store at +2 to +8 °C. Keep containers securely sealed and protected against physical damage.

Section 8 - Exposure Controls and Personal Protection

Other Exposure Information A time weighted average (TWA) concentration for an 8 hour day, and 5 day week has not been established by Safe Work Australia for this product. There is a blanket limit of 10 mg/m³ for dusts when limits have not otherwise been established.

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.

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.

Eye and 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.

Hand 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.

Hygiene Measures Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Section 9 - Physical and Chemical Properties

Form Solid

Appearance White powder.

Odour Characteristic.

Melting Point 40 - 43 °C (decomposes)

Solubility in Water Slightly soluble (20 g/L @ 20 °C)

pH 5.1 (10 g/l, H₂O, 20 °C)

Flash Point 113°C

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Flammability Combustible.

Molecular Weight 154.25 g/mol

Section 10 - Stability and Reactivity

Chemical Stability May decompose on exposure to moist air or water. Stable under recommended storage conditions.

Possibility of Hazardous Reactions Forms explosive mixtures with air on intense heating.

Conditions to Avoid Strong heating, bases, oxidizing agents, reducing agents, alkali metals.

Incompatible Materials Strong oxidizing agents, strong acids.

Hazardous Decomposition Products Oxides of carbon, sulfur oxides.

Hazardous Polymerization Will not occur.

Section 11 - Toxicological Information

Acute Toxicity - Oral LD50 (rat): 400 mg/kg.

Ingestion Harmful if swallowed. Causes irritation to the gastrointestinal tract. Symptoms may be nausea, vomiting and diarrhea.

Inhalation May be harmful if inhaled. Irritating to respiratory system. May cause coughing, shortness of breath, mucosal irritations.

Skin Irritating to skin. May be harmful if absorbed through skin. May cause skin rash.

Eye Causes irritation to eyes, redness and pain. May cause burns.

Carcinogenicity No evidence of carcinogenic properties.

Mutagenicity No evidence of mutagenic properties.

Chronic Effects Repeated skin or eye contact with solid or solution may cause burns.

Section 12 - Ecological Information

Ecotoxicity No ecological data available for this product.

Bioaccumulative Potential No bioaccumulation is to be expected (log P(o/w) <1.0).
Log Pow: -0.48 (calculated)

Acute Toxicity - Daphnia LC50 Daphnia magna (water flea): 27 mg/l - 48 h

Section 13 - Disposal Considerations

Disposal Considerations Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.

Section 14 - Transport Information

Transport Information Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Section 15 - Regulatory Information

Regulatory Information Listed in the Australian Inventory of Chemical Substances (AICS).

Poisons Schedule Not Scheduled

Section 16 - Any Other Relevant Information

Literature References 'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia.
National Road Transport Commission, 'Australian Code for the Transport of

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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'.
Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand.
Safe Work Australia, 'Hazardous Chemical Information System'.
Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances'.
Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment'.

Contact Person/Point

Paul McCarthy Ph. (08) 8440 2000 **DISCLAIMER STATEMENT:**

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**Empirical Formula
& Structural
Formula**

C9 H6 O4

...End Of MSDS...

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