

Safety Data Sheet DIMETHYLGLYOXIME

SDS no. 99MSRWRF • Version 1.0 • Date of issue: 2025-12-14

SECTION 1: Identification

GHS Product identifier

Product name DIMETHYLGLYOXIME

Other means of identification

Product Product Code

DIMETHYLGLYOXIME AR DA051

DIMETHYLGLYOXIME LR DL051

2,3-Butanedionedioxime,
2,3-Diisonitrosobutane, Diacetyldioxime,
2,3-Butanedionedioxime disodium salt,
2,3-Butanedionedioxime disodium salt,
Biacetyl dioxime, Butane dioxime

Recommended use of the chemical and restrictions on use

Analytical chemistry, especially as a reagent for nickel; biochemical research; Separation of Pd from Sn, Au, Rh and Ir, also to detect Bi with which it forms a bright yellow colour precipitate; 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

Classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as 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

GHS classification in accordance with: UN GHS revision 7

- Acute toxicity, oral, Cat. 3
- Flammable solids, Cat. 2

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GHS label elements, including precautionary statements

Pictograms



Signal word

Danger

Hazard statement(s)

H228

Flammable solid

H301

Toxic if swallowed

Precautionary statement(s)

P210

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

P240

Ground and bond container and receiving equipment.

P241

Use explosion-proof [electrical/ventilating/lighting/...] equipment.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310

IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician

P370+P378

In case of fire: Use agents recommended in Section 5 of SDS for extinction

P501

Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight	116.12
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Component	Identification	Weight %	Classifications
Dimethylglyoxime	CAS no.: 95-45-4 EC no.: 202-420-1	<= 100 %	CLASSIFICATIONS: Acute toxicity, oral, Cat. 3; Flammable solids, Cat. 2. HAZARDS: H228 - Flammable solid; H301 - Toxic if swallowed.

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

Rinse with plenty of water. Get medical attention if irritation develops and persists.

In case of eye contact

If contact with the eye(s) occurs, wash with copious amounts of water for approximately 15 minutes holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. If persistent irritation occurs, obtain medical attention.

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If swallowed

Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice

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

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

Hazards from Combustion Products: May liberate toxic fumes including oxides of carbon and nitrogen.

May be ignited by heat, friction sparks or flames. Fine dust dispersed in air may ignite. Dust can form an explosive mixture in air.

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

Use personal protective equipment as required. Avoid dust formation. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas

Methods and materials for containment and cleaning up

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. SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.

SECTION 7: Handling and storage

Precautions for safe handling

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid breathing dust, vapor, mist, or gas. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Conditions for safe storage, including any incompatibilities

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

Incompatible Materials. Strong oxidizing agents.

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

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

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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

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Body protection

Footwear: Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

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.

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/ NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Solid
Appearance, such as physical state and colour	Crystals or powder.
Colour	White to off white
Odour	Odourless.
Odour threshold	
Melting point and freezing point	238 - 241 °C
Boiling point or initial boiling point and boiling range	No data available
Flammability	Flammable solid category 2.
Lower and upper explosion limit or lower and upper flammability limit	No data available
Flash point	No information available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
pH	Not applicable
Kinematic viscosity	No information available
Solubility	Almost insoluble in water. Soluble in alcohol, ether, pyridine and acetone.
Partition coefficient — n-octanol/ water (logarithmic value)	-0.29

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Vapour pressure	No information available
Density and relative density	Density: 0.5 G/CM3
Relative vapour density	No information available
Particle characteristics	No information available

SECTION 10: Stability and reactivity

Reactivity

Risk of ignition.

Chemical stability

May violently decompose in temperatures above 190 °C.

Possibility of hazardous reactions

Hazardous Polymerization: Will not occur.

Conditions to avoid

Extremes of temperature and direct sunlight. and incompatibles.

Dust generation and temperatures above 190 °C.

Heat, flames, ignition sources

Incompatible materials

Oxidizing agents, strong acids, and reducing agents.

Hazardous decomposition products

Oxides of carbon and nitrogen oxides.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Acute Toxicity - Oral:

Acute Toxicity - Oral: Category 3

Ingestion: Toxic if swallowed. May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated.

Inhalation: May cause irritation to the respiratory tract. May cause irritation of the mucous membranes. Symptoms may include coughing and shortness of breath. The toxicological properties of this substance have not been fully investigated.

Skin corrosion/irritation

May cause irritation with redness and pain.

Serious eye damage/irritation

May cause irritation, redness and pain.

Respiratory or skin sensitization

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

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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

Health Hazard: The toxicological properties of this material have not been fully investigated.

Chronic Effects: Repeated or prolonged skin contact may cause chronic dermatitis.

SECTION 12: Ecological information

Persistence and degradability

Persistence is unlikely

Bioaccumulative potential

Bioaccumulation is unlikely

Mobility in soil

Has low solubility in water therefore not likely to be mobility.

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

Bioaccumulation is unlikely

Other disposal recommendations

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

SECTION 14: Transport information

ADG (Road and Rail)

UN Number: 2926

Class: 4.1, 6.1

Packing Group: III

Proper Shipping Name: FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S. (Dimethylglyoxime)

Hazchem emergency action code (EAC)

2W

IMDG

UN Number: 2926

Class: 4.1, 6.1

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Packing Group: III
Proper Shipping Name: FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S. (Dimethylglyoxime)

IATA

UN Number: 2926
Class: 4.1, 6.1
Packing Group: III
Proper Shipping Name: FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S. (Dimethylglyoxime)

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

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.

Preparation information

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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)