

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name	Dimethylglyoxime
CAS number	95-25-4
Synonyms	None

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory Chemicals
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1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable solids (Category 2)
Acute toxicity, Oral (Category 3)

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard statements

Flammable Solid - Category 2
Acute toxicity, Oral - Category 3

Precaution statements

If medical advice is needed, have a product container or label at hand
Keep out of reach of children
Read label before use
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Ground/bound container and receiving equipment
Use explosion-proof electrical/ventilation/light equipment
Wash skin thoroughly after handling
Do not eat, drink, or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Specific treatment (see supplemental first aid instructions on this label)
Rinse mouth
In case of fire: use agents recommended in section 5 for extinction.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

No information available

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Dimethylglyoxime	-	95-45-4	>99%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled	Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.
In case of skin contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
In case of eye contact	Rinse off immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

If swallowed

Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Seek medical attention if irritation, discomfort or vomiting persists. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Irritation, Nausea, Headache, Shortness of breath

4.3 Indication of any immediate medical attention and special treatment needed

Note to physician: treat symptomatically.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing media**

Water spray, Carbon dioxide (CO₂), dry chemical, alcohol-resistant foam

Unsuitable extinguishing media

No information available

5.2 Specific hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

5.4 Further information

No information available

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Use spark-proof tools and explosion-proof equipment. Ensure that air-handling systems are operational. Ensure adequate ventilation.

6.2 Environmental precautions

Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13. Should not be released into environment.

6.3 Methods and materials for containment and cleaning up

Keep in suitable closed containers for disposal. Wear protective eyewear, gloves, and clothing. Refer to Section 8. Always obey local regulations. Dust deposits should not be allowed to accumulate on surfaces. As these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Collect solids in powder form using vacuum with HEPA filter. Evacuate personnel to safe areas.

6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Minimize dust generation and accumulation. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with eyes, skin, and clothing.

Hygiene measures

No information available

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store away from incompatible materials. Protect from freezing and physical damage. Keep away from food and beverages. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Store in cool, dry conditions in well sealed containers. Store with like hazards.

Incompatibilities

No information available

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

No applicable occupational exposure limits

8.2 Exposure controls

Appropriate engineering controls

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or dusts (total/respirable) below the applicable workplace exposure limits. It is recommended that all dust control equipment such as local exhaust ventilation material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient system. Ensure that dust-handling systems (Such as exhaust ducts, dust collectors, vessels, and processing equipment are designed in a manner to prevent the escape of dust into the work area.

Personal protective equipment

Eye/face protection

Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses or goggles are appropriate eye protection.

Skin protection

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing.

Body Protection

Wear appropriate clothing to prevent skin exposure

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment.

Control of environmental exposure

No information available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Solid
Appearance	Off-white powder
Odor	odorless
Odor Threshold	No information available
pH	No information available
Melting Point/Range	240 - 241 °C (464 - 466 °F)
Boiling Point/Range	No information available

Evaporation Rate	No information available
Flammability (solid)	This substance is a flammable solid (Category 2)
Flammability or explosive limit	No information available
Vapor Pressure	No information available
Vapor Density	No information available
Density	No information available
Solubility	Insoluble
Partition coefficient; n-octanol/water	Not applicable
Autoignition Temp	No information available
Decomposition Temp	No information available
Viscosity	No information available
Molecular Formula	C4 H8 N2 O2
Molecular Weight	116.12
VOC Content(%)	No information available
Oxidizing properties	No information available

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Nonreactive under normal processing conditions.

10.2 Chemical stability

Stable under normal conditions. May violently decompose at temperatures above 190 C.

10.3 Possibility of hazardous reactions

None under normal processing conditions.

10.4 Conditions to avoid

Incompatible materials. Dust generation. Temperatures above 90C.

10.5 Incompatible materials

Strong bases. Oxidizing agents. Strong reducing agents.

10.6 Hazardous decomposition products

Nitrogen oxides. Carbon oxides. Irritating and toxic fumes and gases.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

LD50: 250 mg/kg (Rat)

Skin corrosion/irritation

No information available

Serious eye damage/eye irritation

No information available

Respiratory or skin sensitization

No information available

Germ cell mutagenicity

Hamster Embryo Morphological transformation.

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Dimethylglyoxime	95-45-4	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

None known.

Specific target organ toxicity - repeated exposure

None known.

Reproductive toxicity

No information available.

Chronic effects

No information available.

11.2 Additional Information

No information available

SECTION 12: Ecological information**12.1 Toxicity**

No information available

12.2 Persistence and degradability

No information available

12.3 Bio accumulative potential

No information available.

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

No information available

12.6 Endocrine disrupting properties

No information available

12.7 Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)

UN number: UN2926

Proper shipping name: Flammable solids, toxic, organic, n.o.s. (Butanedione dioxime)

Hazard Class



4.1 Flammable solids, self-reactive substances and solid desensitized explosives



6.1 Toxic substances

Packaging Group III

Environmental hazards No information available

IMDG

UN number: UN2926

Proper shipping name: Flammable solids, toxic, organic, n.o.s. (Butanedione dioxime)

Hazard Class



4.1 Flammable solids, self-reactive substances and solid desensitized explosives





6.1 Toxic substances

Packaging Group III

IATA

UN number: UN2926

Proper shipping name: Flammable solids, toxic, organic, n.o.s. (Butanedione dioxime)

Hazard Class		4.1 Flammable solids, self-reactive substances and solid desensitized explosives
		6.1 Toxic substances
Packaging Group	III	

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Listed

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Acute toxicity hazard

Fire hazard

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Not regulated

Food and Drug Administration (FDA)

Not regulated

US state regulations

US. Massachusetts RTK - Substance List

Not listed

US. New Jersey Worker and Community Right-to-Know Act

Not listed

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed

California Proposition 65

Not listed

SECTION 16: Other information

Revision 1: 06/14/2024

Revision 2: 07/03/2025

SECTION 17: Disclaimer

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.