

Material Safety Data Sheet



**MONOTHIOGLYCEROL
(CONFIRMING TO USP-NF)**

VERSION : 04
DATE OF ISSUE : 01-08-2023
SUPERSEDES : 03

Product Code : 24330

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1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : MONOTHIOGLYCEROL (CONFIRMING TO USP-NF)
Product code : 24330
Identification of the product : MONOTHIOGLYCEROL
CAS No : 96-27-5

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3. Details of the supplier of the safety data sheet

Company identification : MOLYCHEM
Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor,
Mumbai – 400 002 (INDIA)
Tel:+91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442.
Email : info@molychem.net
Works: Plot No. B/9, Badlapur M.I.D.C.,OPP.Shobhavat
Textile Co.,Kulgaon, Badlapur (E), Dist.-Thane-421 503.

1.4. Emergency telephone number

Emergency number : +91 22 4066 8111 (10:00am - 6:00 pm)

2. Hazards identification –DSD

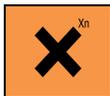
2.1. Classification of the substance or mixture

Acute toxicity, (Category 4) H302: Harmful if swallowed.
Acute toxicity, (Category 3) H331: Toxic if inhaled.
Acute toxicity, (Category 3) H311: Toxic in contact with skin.
Skin irritation, (Category 2) H315: Causes skin irritation.
Skin sensitization, (Sub-category 1B) H317: May cause an allergic skin reaction.

2.2. Label elements

Labelling EC 67/548 or EC 1999/45

Symbol(s) : T+ : Very toxic
Xi : Irritant



R Phrase(s) : R26 : Very toxic by inhalation.
R36/37/38 : Irritating to eyes, respiratory system and skin.
S Phrase(s) : S22 : Do not breathe dust.
S24/25 : Avoid contact with skin and eyes.
S36 : Wear suitable protective clothing.

Labelling Regulation EC 1272/2008 (CLP)

Hazard pictograms

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Signal words : Danger

Hazard statements :

Precautionary statements

H302 Harmful if swallowed.
H311 + H331 Toxic in contact with skin or if inhaled.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.

Precautionary Statements

P261 Avoid breathing mist or vapors.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing.
P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. .
P302 + P352 + P312 IF ON SKIN: Wash with plenty of water.Call a POISON CENTER/ doctor if you feel unwell.
P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor. Supplemental Hazard Statements none

2.3. Other hazards : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3.Composition/information on ingredients

3.1 Substances

Synonyms : α -Thioglycerol
3-Mercapto-1,2-propanediol
 α -Monothioglycerol

Formula : $C_3H_8O_2S$

Molecular weight : 108.16 g/mol

CAS-No. : 96-27-5

4. First aid measures

4.1. Description of first aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower

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In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

4.2. Most important symptoms and effects, both acute and delayed

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

4.3. Indication of any immediate medical attention and special treatment needed

No data available

5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water Foam Carbon dioxide (CO₂) Dry powder.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2. Special hazards arising from the substance or mixture

Carbon oxides

Sulfur oxides

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

5.3. Advice for fire-fighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2. Environmental precautions

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material. Dispose of properly. Clean up affected area.

6.4. Reference to other sections

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For disposal see section 13.

7. Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection.

Wash hands and face after working with substance.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

hygroscopic Store under inert gas. Air sensitive.

Storage class

Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. Exposure controls/personal protection

8.1. Exposure controls

- Personal protection : Avoid all unnecessary exposure.
Respiratory protection : Wear approved mask.
Hand protection : Wear protective gloves.
Skin protection : Wear suitable protective clothing.
Eye protection : Chemical goggles or safety glasses.
Others : When using, do not eat, drink or smoke.

8.2. Control parameters

Occupational Exposure Limits : No data available.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : clear, viscous liquid
Color : colorless
Odor : unpleasant
Melting point/freezing point : Melting point/freezing point: < 25 °C
Initial boiling point and boiling range : 118 °C at 7 hPa - lit.
Flammability (solid, gas) : No data available

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Upper/lower flammability or explosive limits	No data available
Flash point	99 °C - closed cup
Autoignition temperature	300 °C
Decomposition temperature	No data available
pH	3.5 – 7.0 at 50 g/l at 20 °C
Viscosity	Viscosity, kinematic: 88.9 mm ² /s at 20 °C - OECD Test Guideline 114
Water solubility	1.000 g/l at 20 °C - OECD Test Guideline 105- completely soluble
Partition coefficient: n-octanol/water	log Pow: < 0 at 20 °C - OECD Test Guideline 117 - Bioaccumulation is not expected.
Vapor pressure	No data available
Density	1.2410 – 1.2500
Relative density	No data available
Relative vapor density	No data available
Particle characteristics	No data available
Explosive properties	No data available
Oxidizing properties	No data available

9.2. Other information

No data available

10. Stability and reactivity

10.1. Reactivity

Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.

10.2. Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3. Possibility of hazardous reactions

Violent reactions possible with: Bases

Oxidizing agents

Reducing agents

Alkali metals

10.4. Conditions to avoid

Air sensitive.

Strong heating.

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition products

In the event of fire: see section 5

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11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Oral: Harmful if swallowed. Dermal: Toxic in contact with skin. Inhalation: Fatal if inhaled.
Skin corrosion/irritation	: Causes skin irritation
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

12. Ecological information

12.1. Toxicity

No additional information available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No data available

13. Disposal considerations

13.1. Waste treatment methods

No data available

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14. Transport information

14.1. UN number

ADR/RID: 2810

IMDG : 2810

IATA: 2810

14.2. UN proper shipping name

ADR/RID :

TOXIC LIQUID, ORGANIC, N.O.S. (3-mercaptopropane-1,2-diol)

IMDG:

TOXIC LIQUID, ORGANIC, N.O.S. (3-mercaptopropane-1,2-diol)

IATA:

Toxic liquid, organic, n.o.s. (3-mercaptopropane-1,2-diol)

14.3. Transport hazard class(es)

ADR/RID : 6.1

IMDG : 6.1

IATA : 6.1

14.4. Packaging group

ADR/RID : III

IMDG : III

IATA : III

14.5 Environmental hazards

ADR/RID : no

IMDG : Marine pollutant: no

IATA : no

14.6 Special precautions for user

Further information

Not classified as dangerous in the meaning of transport regulations.

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

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ACUTE TOXIC

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of Dir 94/33/EC on the protection of young people at work.

15.2. Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

16. Other information

Abbreviations and acronyms :

PBT : persistent, bioaccumulative and toxic.

vPvB: very persistent and very bioaccumulative

Sources of key data used : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and

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mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

Further information : None.

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008
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End of document

Prepared by: MOLYCHEM (INDIA)

For questions contact: MOLYCHEM

Office: Maker Tower 'E', 41-A2, 4th Floor, Above Maker Arcade,
Cuffe Parade, Mumbai 400 005 (INDIA)

Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442.

Email : info@molychem.net

Works: Plot No. B/9, Badlapur M.I.D.C., OPP. Shobhavat Textile Co.,
Kulgaon, Badlapur (E), Dist.-Thane-421 503

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MOLYCHEM Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA)

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