

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 16 Aug 2022

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

Dimethyl disulfide

1.1. Catalog No.:

680169

1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

1.3. Uses advised against:

HPC Standards GmbH
Am Wieseneck 7

04451 Cunnersdorf
Deutschland

Tel. +49 34291 3372-36
Fax. +49 34291 3372-39
contact@hpc-standards.com

1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Flammable liquids (Category 2), H225
Acute toxicity, Oral (Category 4), H302
Acute toxicity, Inhalation (Category 3), H331
Eye irritation (Category 2), H319
Specific target organ toxicity - single exposure (Category 3), H335
Chronic aquatic toxicity (Category 2), H411 Classification according to EU Directives 67/548/EEC or 1999/45/EC
F, Xn,
N
Highly flammable, Harmful,
Dangerous for the
environment
R11, R20/22, R36/37, R51/53

2.2. Label elements

2.2.1. Pictogram



2.2.2.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram Signal word Danger

Hazard statement(s)

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H335 May cause respiratory irritation.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P261 Avoid breathing vapours.

P273 Avoid release to the environment.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P311 Call a POISON CENTER or doctor/ physician.

Supplemental Hazard

Statements

none

2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Formula : C₂H₆S₂

Molecular Weight : 94,2 g/mol

CAS-No. : 624-92-0

EC-No. : 210-871-0

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component Classification Concentration

Dimethyl disulphide

CAS-No.

EC-No.

624-92-0

210-871-0

Flam. Liq. 2; Acute Tox. 4;

Acute Tox. 3; Eye Irrit. 2;

STOT SE 3; Aquatic Chronic

2; H225, H302, H319, H331,

H335, H411

<= 100 %

Hazardous ingredients according to Directive 1999/45/EC

Component Classification Concentration

Dimethyl disulphide

CAS-No.

EC-No.

624-92-0

210-871-0

F, Xn, N, R11 - R20/22 -

R36/37 - R51/53

<= 100 %

3.1.1. Formula

C₂H₆S₂

3.1.2. Molecular Weight (g/mol)

94.20

3.1.3. CAS-No.

624-92-0

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Sulphur oxides

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

Use water spray to cool unopened containers

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

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 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry Hands

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- a) Appearance Form: clear, liquid
Colour: colourless
 - b) Odour Stench.
 - c) Odour Threshold no data available
 - d) pH no data available
 - e) Melting point/freezing point
Melting point/range: -85 °C - lit.
 - f) Initial boiling point and boiling range
108 - 110 °C at 1.013 hPa
 - g) Flash point 15 °C - closed cup
 - h) Evaporation rate no data available
 - i) Flammability (solid, gas) no data available
 - j) Upper/lower flammability or
Upper explosion limit: 16 %(V)
Lower explosion limit: 1,1 %(V) explosive limits
 - k) Vapour pressure 153 hPa at 55 °C
38,1 hPa at 25 °C
22 hPa at 20 °C - OECD Test Guideline 104
 - l) Vapour density 3,25 - (Air = 1.0)
 - m) Relative density 1,046 g/cm³ at 25 °C - lit.
 - n) Water solubility no data available
 - o) Partition coefficient: noctanol/
water
log Pow: 1,77 -
 - p) Auto-ignition temperature
no data available
 - q) Decomposition temperature
no data available
 - r) Viscosity no data available
 - s) Explosive properties no data available
 - t) Oxidizing properties no data available
- ### 9.2 Other safety information
- Relative vapour density 3,25 - (Air = 1.0)

10. STABILITY AND REACTIVITY

- 10.1 Reactivity
no data available
- 10.2 Chemical stability
Stable under recommended storage conditions.
- 10.3 Possibility of hazardous reactions
no data available
- 10.4 Conditions to avoid
Heat, flames and sparks. Extremes of temperature and direct sunlight.
- 10.5 Incompatible materials
Strong bases, Strong oxidizing agents, Strong reducing agents
- 10.6 Hazardous decomposition products
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects
Acute toxicity

LD50 Oral - rat - > 300 mg/kg
(Directive 67/548/EEC, Annex V, B.1.)
LC50 Inhalation - rat - 4 h - 1167 - 1471 ppm
LD50 Dermal - rabbit - > 2.000 mg/kg
Skin corrosion/irritation
Skin - rabbit
Result: Mild skin irritation
Serious eye damage/eye irritation
Eyes - rabbit
Result: Moderate eye Irritation Respiratory or skin sensitisation
no data available
Germ cell mutagenicity
no data available
Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity
no data available
Specific target organ toxicity - single exposure
Inhalation - May cause respiratory irritation.
Specific target organ toxicity - repeated exposure
no data available
Aspiration hazard
no data available
Additional Information
RTECS: JO1927500
Nausea, Headache, Vomiting, anemia

12. ECOLOGICAL INFORMATION

12.1 Toxicity
Toxicity to fish LC50 - Salmo salar (Atlantic salmon) - 1,75 mg/l
Toxicity to daphnia and other aquatic invertebrates
EC50 - Daphnia magna (Water flea) - 7 mg/l - 48 h
12.2 Persistence and degradability
Biodegradability Result: < 10 % - According to the results of tests of biodegradability this product is not readily biodegradable.
(OECD Test Guideline 301)
12.3 Bioaccumulative potential
no data available
12.4 Mobility in soil
no data available
12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
12.6 Other adverse effects
Toxic to aquatic life with long lasting effects

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging
Dispose of as unused product

14. TRANSPORT INFORMATION

14.1 UN number
ADR/RID: 2381 IMDG: 2381 IATA: 2381
14.2 UN proper shipping name
ADR/RID: Not permitted for transport
IMDG: DIMETHYL DISULPHIDE
IATA: Dimethyl disulphide
Passenger Aircraft: Not permitted for transport
Cargo Aircraft: Not permitted for transport
14.3 Transport hazard class(es)
ADR/RID: 3 (6.1) IMDG: 3 (6.1) IATA: 3 (6.1)
14.4 Packaging group
ADR/RID: II IMDG: II IATA: II
14.5 Environmental hazards
ADR/RID: yes IMDG Marine pollutant: yes IATA: no
14.6 Special precautions for user
no data available

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available
15.2 Chemical Safety Assessment
For this product a chemical safety assessment was not carried out

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.
The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. For lab use only!