

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date: 06.05.2021

Version No: 6.01

Revision: 06.05.2021

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

· **1.1 Product identifier**

· **Trade name:** Dimethyl Sulfide (DMS)

· **CAS Number:**

75-18-3

· **EC number:**

200-846-2

· **Registration number:** 01-2119487127-32-0002

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

No further relevant information available.

· **Application of the substance / the preparation:** Laboratory chemicals

· **Uses advised against:** No further relevant information available.

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Gaylord Chemical Company, L.L.C.

1880 Fairlawn Rd

Tuscaloosa, AL 35401

United States

Tel: +1 (205) 561-5045

Email: ehs@gaylordchem.com

· **1.4 Emergency telephone number:**

EMERGENCY HEALTH, SAFETY & ENVIRONMENTAL INFORMATION CALL:

Gaylord Chemical Company, LLC

Tel: +1 (985) 649-5464 (8:00 am - 5:00 pm CST)

+1 (205) 342-0650 (Nights and Weekends)

EMERGENCY TRANSPORTATION INFORMATION, CALL:

CHEMTREC

DOMESTIC NORTH AMERICA: (800) 424-9300

INTERNATIONAL: +1 (703) 741-5500

OTHER INFORMATION, CALL:

Gaylord Chemical Company, LLC

Tel: +1 (985) 649-5464

## SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS02

· **Signal word** Danger

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**Hazard statements**

H225 Highly flammable liquid and vapour.

**Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

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/hearing protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**2.3 Other hazards****Results of PBT and vPvB assessment**

PBT: No

vPvB: No

### SECTION 3: Composition/information on ingredients

**3.1 Chemical characterisation: Substances****CAS No. Description**

75-18-3 dimethyl sulphide

**Identification number(s)**

EC number: 200-846-2

### SECTION 4: First aid measures

**4.1 Description of first aid measures****General information:**

Take affected persons out of danger area and lay down.

Immediately remove any clothing soiled by the product.

In case of irregular breathing or respiratory arrest provide artificial respiration.

**After inhalation:**

Take affected persons into fresh air and keep quiet.

Seek medical treatment in case of complaints.

**After skin contact:**

Immediately rinse with water.

If skin irritation continues, consult a doctor.

**After eye contact:**

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

Seek medical treatment.

**After swallowing:**

Rinse out mouth and then drink plenty of water.

Do NOT induce vomiting.

If symptoms persist consult doctor.

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

No further relevant information available.

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

No further relevant information available.

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### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, sand, extinguishing powder. Do not use water.  
Alcohol resistant foam  
Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** Water
- **5.2 Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.  
In case of fire, the following can be released:  
Carbon monoxide  
Carbon dioxide  
Sulphur oxides (SO<sub>x</sub>)
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**  
Cool endangered receptacles with water spray.  
Collect contaminated fire fighting water separately. It must not enter the sewage system.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Ensure adequate ventilation.  
Wear protective equipment. Keep unprotected persons away.  
Keep away from ignition sources.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Ensure adequate ventilation.  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Do not flush with water or aqueous cleansing agents  
Dispose of the material collected according to regulations.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
- **Information about fire and explosion protection:**  
Protect against electrostatic charges.  
Keep ignition sources away - Do not smoke.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Store in a cool location.  
Store only in the original receptacle.  
Suitable material for receptacles and pipes: steel or stainless steel.
- **Information about storage in one common storage facility:** Store away from oxidising agents.
- **Further information about storage conditions:**  
Store receptacle in a well ventilated area.  
Store in cool, dry conditions in well sealed receptacles.

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· **7.3 Specific end use(s)** No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

**CAS: 75-18-3 dimethyl sulphide**

OEL (Ireland) | Long-term value: 10 ppm

· **DNELs**

Dermal	DNEL(long/systemic)	80.00 mg/kg bw/day (Workers (Industrial/Professional))
Inhalative	DNEL(long/systemic)	5.60 mg/m <sup>3</sup> (Consumer) 31.50 mg/m <sup>3</sup> (Workers (Industrial/Professional))

· **PNECs**

PNEC(STP)	0.2 mg/L (sewage treatment plant) (AF)
PNEC(aqua)	0.029 mg/L (freshwater) (AF)
	0.0029 mg/L (marine water) (AF)
	0.29 mg/L (intermittent release) (AF)
PNEC(sediment)	0.012 mg/kg sedi. dw (freshwater) (EPM)
PNEC(soil)	0.0072 mg/kg soil dw (soil) (EPM)

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Do not eat, drink, smoke or sniff while working.

Keep away from foodstuffs, beverages and feed.

Do not inhale gases / fumes / aerosols.

The usual precautionary measures are to be adhered to when handling chemicals.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Use suitable respiratory protective device in case of insufficient ventilation.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

· **Material of gloves**

Recommended thickness of the material:  $\geq 0.75$  mm

Butyl rubber, BR

Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

**SECTION 9: Physical and chemical properties**

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· <b>Form:</b>	Liquid
· <b>Colour:</b>	Colourless
· <b>Odour:</b>	Sulfurous
· <b>Odour threshold:</b>	Not determined.
· <b>pH-value:</b>	Not determined.

· **Change in condition**

· <b>Melting point/freezing point:</b>	- 98 °C
· <b>Initial boiling point and boiling range:</b>	37.3 °C

· **Flash point:** - 49 °C

· **Flammability (solid, gas):** Not applicable.

· **Ignition temperature:** 205 °C

· **Decomposition temperature:** Not determined.

· **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· **Explosion limits:**

· <b>Lower:</b>	2.2 Vol %
	Not applicable.
· <b>Upper:</b>	19.7 Vol %
	Not applicable.

· **Oxidising properties**

No

· **Vapour pressure at 20 °C:** 532 hPa

· **Density at 20 °C:** 0.85 g/cm<sup>3</sup>

· **Relative density** Not determined.

· **Vapour density** 2.1 (air=1)

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with water at 20 °C:**

7.3 g/l

· **Partition coefficient: n-octanol/water:** 0.84 logPow

· **Viscosity:**

· **Dynamic:** Not determined.

· **Kinematic:** Not determined.

· **9.2 Other information**

No further relevant information available.

**SECTION 10: Stability and reactivity**

· **10.1 Reactivity** No further relevant information available.

· **10.2 Chemical stability** No decomposition if used and stored according to specifications.

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- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** Keep away from heat and direct sunlight.
- **10.5 Incompatible materials:** Reacts with strong acids and oxidising agents.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

Oral	LD50	> 5000 mg/kg (Rat) (OECD Guideline 401) Read-across to CAS 624-89-5
Dermal	LD50	> 2000 mg/kg (Rat) (OECD Guideline 402) Read-across to CAS 624-89-5
Inhalative	LC50 (4h)	102 mg/L (Rat) (OECD Guideline 403)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

EC50 (48h) (static)	> 113.70 mg/L (Algae) (OECD Guideline 201, Pseudokirchnerella subcapitata) 29 mg/L (Daphnia) (OECD Guideline 202, Daphnia magna)
LC50 (96h)	213 mg/L (Fish) (OECD Guideline 203, Oncorhynchus mykiss) semi-static

- **12.2 Persistence and degradability** Readily biodegradable
- **12.3 Bioaccumulative potential** Does not accumulate in organisms.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**  
According to the results of its assessment, this substance is not a PBT or a vPvB.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation:** Must be specially treated adhering to official regulations.
- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.

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- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

## SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR/RID/ADN, IMDG, IATA** UN1164
- **14.2 UN proper shipping name**
- **ADR/RID/ADN** 1164 DIMETHYL SULPHIDE
- **IMDG, IATA** DIMETHYL SULPHIDE
- **14.3 Transport hazard class(es)**
- **ADR/RID/ADN, IMDG, IATA**



- **Class** 3 Flammable liquids.
- **Label** 3
- **14.4 Packing group**
- **ADR/RID/ADN, IMDG, IATA** II
- **14.5 Environmental hazards:**
- **Marine pollutant:** No
- **14.6 Special precautions for user** Warning: Flammable liquids.
- **Hazard identification number (Kemler code):** 33
- **EMS Number:** F-E,S-D
- **Stowage Category** E
- **Stowage Code** SW2 Clear of living quarters.
- **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** No further relevant information available.
- **Transport/Additional information:**

- **ADR/RID/ADN**
- **Tunnel restriction code** D/E
- **UN "Model Regulation":** UN 1164 DIMETHYL SULPHIDE, 3, II

## SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **Seveso category** P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50000 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 40
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**  
Substance is not listed.
- **REGULATION (EU) 2019/1148**
- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**  
Substance is not listed.
- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS** Substance is not listed.
- **Chemical Inventories:**  
Australia - AICS

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Canada - DSL  
EU - EINECS  
China - IECSC  
Japan - ENCS  
New Zealand - NZIoC  
Korea - ECL  
USA - TSCA  
Philippines - PICCS

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has been carried out.
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## SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:**

Chemservice GmbH  
Herrnsheimer Hauptstrasse 1b  
D-67550 Worms  
Tel.: +49 (0)6241-95480-0  
Fax: +49 (0)6241-95480-25  
Email: sds@chemservice-group.com

- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
ICAO: International Civil Aviation Organisation  
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals  
MARPOL: (from Marine Pollutant) International Convention for the Prevention of Marine Pollution from Ships  
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
UN: United Nations (also UNO: United Nations Organization)  
NOEC: No Observed Effect Concentration  
OECD: Organisation for Economic Co-operation and Development  
ASTM: American Society for Testing and Materials  
WAF: Water Accommodated Fraction  
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
DNEL: Derived No-Effect Level (REACH)  
PNEC: Predicted No-Effect Concentration (REACH)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Flam. Liq. 2: Flammable liquids – Category 2

- \* **Data compared to the previous version altered.**
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