

**1. PRODUCT AND COMPANY IDENTIFICATION:**

**PRODUCT CODE** H0123  
**PRODUCT NAME** Dimethyl Sulfide  
**SUPPLIER** Shanghai M & U International Trade Co., Ltd.  
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**FOR EMERGENCIES CALL CHEMTREC: 800-424-9300 (24-HOURS)**

**2. HAZARD IDENTIFICATION:**

**Classification of the substance or mixture**



GHS02 Flame

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

**Label elements**

Harmful in contact with skin or if inhaled.

**GHS label elements**

Pictograms on label shall be in the shape of a square set at a point and shall include a black hazard symbol on a white background with a red frame sufficiently wide to be clearly visible. The substance is classified and labeled according to the Globally Harmonized System (GHS).

**Hazard pictograms**



GHS02

**Signal word**

Danger

**Hazard statements**

H225 Highly flammable liquid and vapor.

**Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces – No smoking.  
P241 Use explosion-proof electrical/ventilating/lighting/equipment.  
P280 Wear protective gloves/eye protection/face protection  
P303+P361+P353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower  
P403+P235 Store in well-ventilated place. Keep cool.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Classification system:****NFPA ratings (scale 0 - 4)**

Health = 2

Fire = 3

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = 2

Fire = 3

Reactivity = 0

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

Not applicable.

**vPvB:**

Not applicable.

**3. COMPOSITION AND INFORMATION ON INGREDIENTS:****Chemical characterization: Substances****CAS No.:** 75-18-3**Description:** Methyl sulfide (DMS)**Identification number(s)****EC- No.:** 200-846-2**Hazardous components:**

| Component        | Classification   | Concentration |
|------------------|--|---------------|
| Dimethyl Sulfide | Flam. Liq. 2; Irrit. 2A;<br>Aquatic acute 3; H225, H319,<br>H402 | <=100%        |

#### **4. FIRST-AID GUIDE:**

##### **Description of first aid measures**

###### **After inhalation:**

Supply fresh air, if required, provide artificial respiration. Keep patient warm, consult a doctor if symptoms persist.

###### **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

###### **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

###### **After swallowing:**

Do NOT induce vomiting. Immediately call for medical help.

###### **Information for doctor:**

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

No further relevant information available.

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

No further relevant information available.

#### **5. FIRE-FIGHTING GUIDE:**

##### **Extinguishing media**

###### **Suitable extinguishing agents:**

CO<sub>2</sub> or extinguishing powder. Fight larger fires with alcohol resistant foam.

###### **Special hazards arising from the substance or mixture**

No further relevant information available.

###### **Advice for firefighters**

###### **Protective equipment:**

No special measures required.

###### **Additional information**

Cool endangered receptacles with water spray.

Collect contaminated firefighting water separately. It must not enter the sewage system.

#### **6. ACCIDENTAL RELEASE GUIDE:**

##### **Personal precautions, protective equipment and emergency procedures**

Not required.

**Environmental precautions:**

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

**Methods and material 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).

**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.

**7. HANDLING AND STORAGE:****Handling:****Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Use explosion proof equipment. Keep away from sources of ignition – No smoking.

**Information about protection against explosions and fires:**

No special measures required.

**Conditions for safe storage, including any incompatibilities****Storage:****Requirements to be met by storerooms and receptacles:**

Keep receptacle tightly sealed, in dry well-ventilated place.

Handle and store under inert gas. Refrigerate before opening. Hygroscopic class TRGS 510: Flammable liquids.

**Information about storage in one common storage facility:**

Not required.

**Further information about storage conditions:**

Keep receptacle tightly sealed.

**Specific end use(s)**

No further relevant information available.

**8. EXPOSURE AND PERSONAL PROTECTION:****Additional information about design of technical systems:**

No further data; see item 7.

**Control parameters**

**Components with limit values that require monitoring at the workplace:**

Dimethyl Sulfide (75-18-3)

Value: TWA

Control Parameters: 10ppm (USA. ACGIH Threshold Limit Values (TLV))

Workers – Inhalation

Health effect: Long term systemic effects

Value 31.5 mg/m<sup>3</sup>

Workers – skin contact

Health effect: Long term systemic effects

Value: 80mg/kg BW/d

Consumers – Inhalation

Health effect: Long term systemic effects

Value 31.5 mg/m<sup>3</sup>

**Predicted No Effect Concentration (PNED)**

| Compartment          | Value       |
|----------------------|-------------|
| Soil                 | 0.0072mg/kg |
| Marine Water         | 0.0029mg/l  |
| Fresh water          | 0.29mg/l    |
| Fresh water sediment | 0.12 mg/kg  |

**Additional information:**

The lists that were valid during the creation were used as a basis.

**Exposure controls**

**Personal protective equipment:**

**General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

**Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

**Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material should be based on consideration of the penetration times, rates of diffusion and the degradation.

**Material of gloves**

Fluorinated rubber, full contact and splash contact.

### Penetration time of glove material

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

### Eye protection:



Tightly sealed goggles.

## 9. PHYSICAL AND CHEMICAL PROPERTIES:

Information on basic physical and chemical properties

|  |                               |
|--|-------------------------------|
| <b>General Information</b>                           |                               |
| <b>Appearance:</b>                                   |                               |
| <b>Form:</b>   | Liquid                        |
| <b>Color:</b>  | Colorless                     |
| <b>Odor:</b>   | Characteristic                |
| <b>Odour threshold:</b>                              | Not determined.               |
| <b>pH-value:</b>                                     | Not determined.               |
| <b>Change in condition</b>                           |                               |
| <b>Melting point/Melting range:</b>                  | -98°C (-144°F)                |
| <b>Boiling point/Boiling range: (33 hPa/25 mmHg)</b> | 38 °C (100 mbar°F)            |
| <b>Flash point:</b>                                  | -35.99°C (-32.78°F)           |
| <b>Flammability (solid, gaseous):</b>                | Not applicable.               |
| <b>Ignition temperature:</b>                         |                               |
| <b>Decomposition temperature:</b>                    | Not determined.               |
| <b>Auto igniting:</b>                                | Not determined.               |
| <b>Danger of explosion:</b>                          | Not determined.               |
| <b>Explosion limits:</b>                             |                               |
| <b>Lower:</b>  | 2.2%(V)                       |
| <b>Upper:</b>  | 19.7%(V)                      |
| <b>Vapor pressure:</b>                               | 402.7 hPa (302.0 mmHg) @ 20°C |
| <b>Density at 25 °C (77 °F):</b>                     |                               |
| <b>Relative density</b>                              | 0.846g/cm <sup>3</sup>        |
| <b>Vapour density</b>                                | Not determined.               |
| <b>Evaporation rate</b>                              | Not determined.               |
| <b>Solubility in / Miscibility with Water:</b>       | 7.28 g/l @ 20°C               |
| <b>Partition coefficient (n-octanol/water):</b>      | Not determined.               |
| <b>Viscosity:</b>                                    |                               |
| <b>Dynamic:</b>                                      | Not determined.               |
| <b>Kinematic:</b>                                    | Not determined.               |

|                          |  |
|--------------------------|--|
| <b>Organic solvents:</b> | 0.0 %                                      |
| <b>Other information</b> | No further relevant information available. |

## 10. STABILITY AND REACTIVITY:

### **Reactivity**

#### **Chemical stability**

#### **Thermal decomposition/conditions to be avoided:**

No decomposition if used according to specifications.

#### **Possibility of hazardous reactions**

Vapors may form explosive mixture with air.

#### **Conditions to avoid**

Heat, flames and sparks.

#### **Incompatible materials:**

Strong oxidizing agents.

#### **Hazardous decomposition products:**

No information available.

## 11. TOXICOLOGICAL INFORMATION:

### **Information on toxicological effects**

#### **Acute toxicity:**

#### **Primary irritant effect:**

##### **On the skin:**

Irritant to skin and mucous membranes.

##### **On the eye:**

Irritating effect.

#### **Sensitization:**

No sensitizing effects known.

#### **Additional toxicological information:**

##### **Carcinogenic categories**

##### **IARC (International Agency for Research on Cancer)**

Substance is not listed.

##### **NTP (National Toxicology Program)**

Substance is not listed.

##### **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

## 12. ECOLOGICAL INFORMATION:

### Toxicity

#### Aquatic toxicity:

Toxicity to fish semi-static test LC50 - *Oncorhynchus mykiss* (rainbow trout) - 213 mg/l - 96 h (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates static test EC50 - *Daphnia magna* (Water flea) - 29 mg/l – 48 Aldrich - W274615 (OECD Test Guideline 202)

Toxicity to algae static test EC50 - *Pseudokirchneriella subcapitata* (green algae) - > 113.7 mg/l - 72 h (OECD Test Guideline 201)

### Persistence and degradability

Biodegradability aerobic – exposure time 28 d  
Result: 77% - ready biodegradable (OECD Test Guideline 301D)

### Behavior in environmental systems:

#### Bioaccumulative potential

No further relevant information available.

#### Mobility in soil

No further relevant information available.

### Additional ecological information:

#### General notes:

#### Results of PBT and vPvB assessment

##### PBT:

Not applicable.

##### vPvB:

Not applicable.

#### Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Harmful to aquatic life.

## 13. DISPOSAL RECOMMENDATIONS:

### Waste treatment methods

#### Recommendation:

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. Contact a licensed professional waste disposal service to dispose of this material.



**Uncleaned packaging:**  
Dispose of as unused product.

**Recommendation:**  
Disposal must be made according to official regulations.

#### 14. TRANSPORTATION INFORMATION:

|   |   |
|---|---|
| <b>UN-Number</b><br><b>DOT, ADR, IMDG, IATA</b>                                       | 1164  |
| <b>UN proper shipping name</b><br><b>DOT</b>  | Dimethyl sulfide, Class 3; No poison inhalation hazard. |
| <b>ADR</b>  | DIMETHYL SULPHIDE; EMS-No: F-E, S-D                     |
| <b>IMDG, IATA</b>   | Dimethyl Sulphide                                       |
| <b>Transport hazard class(es)</b><br><b>DOT, ADR, IMDG, IATA</b><br><b>Class</b>      | 3   |
| <b>Packing group</b><br><b>DOT, ADR, IMDG, IATA</b>                                   | II  |
| <b>Environmental hazards:</b><br><b>Marine pollutant:</b>                             | Yes   |
| <b>Special precautions for user</b>   |   |
| <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>        | Not applicable.   |
| <b>Transport/Additional information:</b><br><b>DOT</b><br><b>Quantity limitations</b> | Not applicable.   |
| <b>ADR</b><br><b>Excepted quantities (EQ)</b>   | Not applicable.   |
| <b>IMDG</b><br><b>Limited quantities (LQ)</b><br><b>Excepted quantities (EQ)</b>      | Not applicable.   |
| <b>UN "Model Regulation":</b>   | Not applicable.   |

#### 15. REGULATORY INFORMATION:

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

**Sara**

**Section 355 (extremely hazardous substances):**  
Substance is not listed.

**Section 313 (Specific toxic chemical listings):**  
Substance is not listed.

**TSCA (Toxic Substances Control Act):**

Substance is not listed.

**Proposition 65**

**Chemicals known to cause cancer:**

Substance is not listed.

**Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

**Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

**Chemicals known to cause developmental toxicity:**

Substance is not listed.

**Carcinogenic categories**

**EPA (Environmental Protection Agency)**

Substance is not listed.

**TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

**GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

**Hazard pictograms**

Pictograms on label shall be in the shape of a square set at a point and shall include a black hazard symbol on a white background with a red frame sufficiently wide to be clearly visible.



GHS06

**Signal word**

Danger

**Hazard statements**

|               |                                     |
|---------------|-------------------------------------|
| Aquatic Acute | Acute aquatic toxicity              |
| Eye Irrit.    | Eye irritation                      |
| Flam. Liq.    | Flammable liquids                   |
| H225          | Highly flammable liquid and vapour. |

H319 Causes serious eye irritation.

H402 Harmful to aquatic life.

**Precautionary statements**

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

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P280 Wear protective gloves/eye protection/face protection

P303+P361+P353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower

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

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

**Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

**16. OTHER INFORMATION:**

The information in this SDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond M&U's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the SDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.

**Prepared By:** M&U International LLC

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