

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

### 1.1. Product identifier

Name: Dimethyl sulphoxide for biochemistry

Synonym: DMSO, Methylsulphoxide, Sulphinylbismethane

Article number: 1979

CAS number: 67-68-5

REACH Registration Number: 01-2119431362-50-XXXX

### 1.2. Relevant identified uses of the substance or mixture:

- laboratory utilization
- analysis
- research
- fine chemistry.

### 1.3. Details of the supplier of the safety data sheet

**Manufacturer/Supplier:**

neoFroxx GmbH

Marie-Curie-Str. 3

D-64683 Einhausen

[info@neofroxx.com](mailto:info@neofroxx.com)

**Further information obtainable from:**

Dep. Quality Control

### 1.4. Emergency telephone number

+49 (6251) 989 24 - 0 (during normal business hours)

## 2. Hazards identification

### 2.1. Classification of the substance or the mixture.

No hazardous substance as specified in Regulation (CE) 1272/2008.

### 2.2. Other hazards:

No further relevant information available.

## 3. Composition / information on ingredients

Name: Dimethyl Sulphoxide

Formula: C<sub>2</sub>H<sub>6</sub>OS

M.= 78,13

CAS [67-68-5]

EC number (EINECS): 200-664-3

REACH Registration Number: 01-2119431362-50-XXXX

## 4. First aid measures

### 4.1. General indications:

Never provide drink or induce vomiting in the event of loss of consciousness.

### 4.2. Inhaling:

Take the person out into the fresh air. Loosen clothing to release respiratory channels.

### 4.3. Contact with the skin:

Wash with plenty of water. Remove contaminated clothing.

### 4.4. Eyes:

Wash with plenty of water, keeping eyelids open. In the event of irritation, seek medical assistance.

#### 4.5. Swallowing:

Drink large amounts of water. Administer a solution of medical-usage active charcoal. Administer Vaseline oil as a laxative (3 ml/kg). Laxatives: sodium sulphate (1 soup-spoonful in 250 ml of water). Do not drink milk. Do not administer digestive oils. Do not drink ethyl alcohol. Call for medical help.

### 5. Firefighting measures

#### 5.1. Suitable extinguishing media:

Water. Carbon dioxide (CO<sub>2</sub>). Alcohol resistant foam. Dry powder.

#### 5.2. Unsuitable extinguishing media:

No specific data.

#### 5.3. Special hazards arising from the substance or mixture:

Flammable. Keep away from sources of ignition. The fumes are heavier than air, so they may spread at floor level. In the event of fire, toxic fumes may form.

#### 5.4. Advice for firefighters:

Suitable clothing and footwear.

### 6. Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures:

Do not inhale the fumes.

#### 6.2. Environmental precautions:

Avoid pollution of the soil, water supplies and drains.

#### 6.3. Methods and material for containment and cleaning up:

Collect up with absorbent materials (General Absorbent, Kieselguhr, etc.) or, if none available, dry sand or earth, and deposit in waste containers for subsequent elimination in accordance with current legislation. Clean any remains with plenty of water.

### 7. Handling and storage

#### 7.1. Precautions for safe handling:

No special indications.

#### 7.2. Conditions for safe storage, including any incompatibilities:

Well sealed containers. Dry atmosphere. In well ventilated premises. Away from sources of ignition and heat.

**Recommended storage temperature:** Room temperature.

### 8. Exposure controls / personal protection

#### 8.1. Exposure controls:

No special indications.

#### 8.2. Control parameters:

Data not available.

#### 8.3. Respiratory protection:

In the event of fumes forming/aerosols, use suitable respiratory protection.

#### 8.4. Hand protection:

Use suitable gloves

#### 8.5. Eye/face protection:

Use suitable goggles.

#### neoFroxx GmbH

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[www.neofroxx.com](http://www.neofroxx.com)

- 8.6. Individual hygiene measures:  
Remove contaminated clothing. Use suitable work clothing. Wash hands and face before breaks and when the job is done.
- 8.7. Environmental exposure controls:  
Fulfill the commitments under local environmental protection legislation.

## 9. Physical and chemical properties

Appearance: liquid  
Colour: Colourless  
Granulometry: N/A  
Odour: Odourless  
pH: N/A  
Melting point/freezing point: 18,4 °C  
Initial boiling point and boiling range: 189 °C  
Flash point: N/A  
Flammability (solid, gas): N/A  
Upper/lower flammability or explosive limits: / 1,8 %(V)  
Vapour pressure: 0,6 hPa (20 °C)  
Vapour density: N/A  
Relative density: (20/4) 1,1014 g/ml  
Solubility: Miscible with water  
Partition coefficient: n-octanol/water: N/A  
Auto-ignition temperature: 270 °C  
Decomposition temperature: N/A  
Kinematic viscosity: N/A  
Dynamic viscosity: 2 mPa.s (20 °C)

## 10. Stability and reactivity

- 10.1. Conditions to avoid:  
High temperatures.
- 10.2. Incompatible materials:  
Perchloric acid. Strong oxidant agents. Salts of oxyhalogenic acids. Acid halides. Halogen halides.  
Hydrides. Alkaline metals. Nitrates. Non-metal oxyhalides.
- 10.3. Hazardous decomposition products:  
Sulphoxides (in case of fire).
- 10.4. Chemical stability:  
Hygroscopic. The gases/fumes can form explosive mixtures with the air.

## 11. Toxicological information

- 11.1. Acute toxicity:  
LD50 oral rat: 14.500 mg/kg  
LD50 skn rat: 40.000 mg/kg  
LD50 ipr mus: 2.500 mg/kg

- 11.2. Dangerous effects for health:  
Upon contact with the skin: irritations  
Through contact with the eyes: irritations  
If dust inhaled: Irritations to the mucosae  
Other dangerous characteristics are not discarded. Take the usual precautions for handling chemical products.

## 12. Ecological information

- 12.1. Toxicity:  
**EC50 test (mg/l):**  
Bacteria (Photobacterium phosphoreum) (5') 103400 mg/l  
Classification: Hardly toxic.  
**Receptor medium:**  
Risk for the water environment: Low  
Risk for the land environment: Low  
**Observations:** Non-ecotoxic.

- 12.2. Persistence and Degradability:  
**Test:**  
**Biotic degradation classification:**  
BOD5/COD  
Biodegradability  
**Abiotic degradation depending on pH:**  
**Observations:** Non-biodegradable product.

- 12.3. Bioaccumulative potential:  
**Test:**  
**Bioaccumulation:** Risk  
**Observations:** Product with a low bioaccumulative potential.

- 12.4. Mobility in soil:  
Repartition:  $\log P(\text{oct}) = -2,03$

- 12.5. Assessment PBT and MPMB:  
Data not available.

- 12.6. Other adverse effects:  
If suitable handling conditions are maintained, no ecological problems are to be anticipated.  
Hardly pollutant product.

## 13. Disposal considerations

- 13.1. Waste treatment methods:  
In the European Union, there are no homogeneous standards established for elimination of chemical waste, which is waste of a special nature, and treatment and elimination of same is subject to the domestic legislation in each country.  
In view of this, in each case, you should contact the competent authority or those companies legally authorized for elimination of waste.  
2001/573/EC: Council Decision of 23 July 2001 amending Commission Decision 2000/532/EC as regards the list of wastes. Council Directive 91/156/EEC of 18 March 1991 amending Directive 75/442/EEC on waste.

## 13.2. Contaminated containers:

Contaminated containers and packaging of dangerous substances or preparations must be treated in the same manner as the actual products contained in them.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.

## 14. Transport information

Not classified as dangerous in the meaning of transport regulations.

## 15. Regulatory information

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

## 16. Other information

The information included in this Safety Data Sheet is based on our most up-to-date knowledge, and is solely intended to inform regarding aspects of safety; the properties and characteristics indicated herein are not guaranteed.