



Safety Data Sheet According to Regulation (EU) 830/2015

1954 Dimethyl Sulphoxide

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

1.1 Product identifier

Name:

Dimethyl Sulphoxide

Synonym:

DMSO, Methylsulphoxide, Sulphinylbismethane

REACH Registration Number: 01-2119431362-50-XXXX

1.2 Relevant identified uses of the substance or mixture:

For laboratory utilisation, analysis, research and fine chemistry.

1.3 Identification of the company or firm:

PANREAC QUIMICA S.L.U.

C/Garraf 2

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(Barcelona) Spain

Tel. (+34) 937 489 400

e-mail: product.safety@panreac.com

1.4 Emergency telephone:

Single telephone number for emergency calls: 112 (EU)

2. Identification of dangers

2.1 Classification of the substance or the mixture.

2.3 Other hazards:

No further relevant information available.

3. Composition/information on ingredients

3.1 Substances

Name: Dimethyl Sulphoxide
Formula: C₂H₆OS M.= 78,13 CAS [67-68-5]
EC number (EINECS): 200-664-3
REACH Registration Number: 01-2119431362-50-XXXX

3.2 Mixtures

4. First aid measures

4.1 Description of first aid measures

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

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

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.

Inhaling:

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

Contact with the skin:

Wash with plenty of water. Remove contaminated clothing.

Eyes:

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

5. Firefighting measures

5.1 Extinguishing media:

Water. Carbon dioxide (CO₂). Alcohol resistant foam. Dry powder.

5.2 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.

5.3 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 (Panreac 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.

6.4 Reference to other sections

Not applicable

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.

7.3 Specific end use(s)

No more relevant data available

8. Exposure controls/personal protection

8.1 Control parameters:

Data not available.

8.2 Exposure controls

No special indications.

Respiratory protection:

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

Hand protection:

Use suitable gloves

Eye/face protection:

Use safety glasses.

Individual hygiene measures:

Remove contaminated clothing. Use suitable work clothing. Wash hands and face before breaks and when the job is done.

Environmental exposure controls:

Fulfill the commitments under local environmental protection legislation.

9. Physical and chemical properties

9.1 Information on basic 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)

9.2 Other information

No more relevant data available

10. Stability and reactivity

10.1 Reactivity

No specific data.

10.2 Chemical stability:

Hygroscopic. The gases/fumes can form explosive mixtures with the air.

10.3 Possibility of hazardous reactions

No specific data.

10.4 Conditions to avoid:

High temperatures.

10.5 Incompatible materials:

Perchloric acid. Strong oxidant agents. Salts of oxyhalogenic acids. Acid halides. Halogen halides. Hydrides. Alkaline metals. Nitrates. Non-metal oxyhalides.

10.6 Hazardous decomposition products:

Sulphoxides (in case of fire).

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

LD50 oral rat : 14.500 mg/kg

LD50 skn rat : 40.000 mg/kg

LD50 ipr mus : 2.500 mg/kg

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. Environmental 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.

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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.

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14. Transport information

14.1 UN number

Not applicable

14.2 UN proper shipping name

Not applicable

14.3 Transport hazard class(es)

Not applicable

14.4 Packing group

Not applicable

14.5 Environmental hazards

Not applicable

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

15. Regulatory information

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

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

15.2 Chemical safety assessment

Not applicable

16. Other information

Other precautionary statements

Version and revision date : 5 07.10.2017

Date published: 07.10.2017

In respect of the previous review, changes have been made to the following sections: 1,2,4,5,6,7,8,9,10,11,13,14,15

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.