



**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**NATURAL DIMETHYL SULFOXIDE**

Revision date: 04/14/2023

Product code: 387500US

Page 2 of 7

**After inhalation**

Provide fresh air. Remove person to fresh air and keep comfortable for breathing.

**After contact with skin**

Wash with plenty of water. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of soap and water.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water. Rinse cautiously with water for several minutes.

**After ingestion**

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink 1 glass of water. IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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

The uses are provided in Section 2.2. Other uses are not recommended unless an assessment is completed, prior to commencement of that use, which demonstrates that the use will be controlled.

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

Treat symptomatically. No data available

**5. Fire-fighting measures****Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings. In case of fire, use sand, dry chemical powder or alcohol resistant foam.

**Specific hazards arising from the chemical**

Non-flammable. Vapors may form explosive mixtures with air.

**Special protective equipment and precautions for fire-fighters**

In case of fire: Wear self-contained breathing apparatus. Wear a self-contained breathing apparatus and chemical protective clothing.

**Additional information**

Use water spray/stream to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Use water spray/stream to protect personnel and to cool endangered containers.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures****General advice**

Do not breathe gas/vapor/spray. Remove all sources of ignition. Vapors are heavier than air, spread along floors and form explosive mixtures with air.

**Environmental precautions**

Do not allow to enter into surface water or drains. Do not empty into drains.

**Methods and material for containment and cleaning up****For cleaning up**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

**Other information**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Use approved industrial vacuum cleaner for removal. Dispose of waste according to applicable legislation.

**Reference to other sections**

Safe handling: see section 7

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**NATURAL DIMETHYL SULFOXIDE**

Revision date: 04/14/2023

Product code: 387500US

Page 3 of 7

Personal protection equipment (PPE): see section 8

Disposal: see section 13 Disposal: see section 13

**7. Handling and storage****Precautions for safe handling****Advice on safe handling**

Do not breathe gas/fumes/vapor/spray (appropriate wording to be specified by the manufacturer).

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**Advice on general occupational hygiene**

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff. Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

**Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed. Store in a dry place. Store in a closed container. Store in a well-ventilated place. Keep container tightly closed.

**Hints on joint storage**

No special measures are necessary.

**8. Exposure controls/personal protection****Control parameters****Exposure controls****Appropriate engineering controls**

Wash hands before breaks and after work.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Wear eye/face protection.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Tested protective gloves must be worn EN ISO 374 NBR (Nitrile rubber)

**Skin protection**

Use of protective clothing.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection. Self-contained respirator (breathing apparatus) according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

**9. Physical and chemical properties****Information on basic physical and chemical properties**

Physical state:

Liquid

Color:

Melting point/freezing point:

18 °C

## Safety Data Sheet

according to 29 CFR 1910.1200(g)

### NATURAL DIMETHYL SULFOXIDE

Revision date: 04/14/2023

Product code: 387500US

Page 4 of 7

Boiling point or initial boiling point and boiling range:	189 °C
Flammability:	not determined
Lower explosion limits:	1,8 vol. %
Upper explosion limits:	42 vol. %
Flash point:	88 °C
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH-Value:	No data available
Viscosity / kinematic: (at 20 °C)	1,95 mm <sup>2</sup> /s
Water solubility: (at 20 °C)	1000 g/L
Solubility in other solvents	not determined
Partition coefficient n-octanol/water:	-1,35
Vapor pressure: (at 20 °C)	0,56 hPa
Vapor pressure: (at 50 °C)	4,04 hPa
Density:	1,10 g/cm <sup>3</sup>
Bulk density:	No data available
Relative vapour density: (at 20 °C)	2,69

#### Other information

##### **Information with regard to physical hazard classes**

Explosive properties

The product is not: Explosive.

Oxidizing properties

The product is not: oxidising.

##### **Other safety characteristics**

Evaporation rate: No data available

Solvent content: 0%

Solid content: 0%

Viscosity / dynamic:  
(at 20 °C) 2,14 mPa·s

Flow time: No data available

## 10. Stability and reactivity

### Reactivity

No data available

### Chemical stability

Stability: Stable

The substance is chemically stable under recommended conditions of storage, use and temperature.

### Possibility of hazardous reactions

Hazardous reactions: May occur

No data available

### Conditions to avoid

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

## Safety Data Sheet

according to 29 CFR 1910.1200(g)

### NATURAL DIMETHYL SULFOXIDE

Revision date: 04/14/2023

Product code: 387500US

Page 5 of 7

#### Incompatible materials

Do not mix with acids. Acid chlorides, inorganic Phosphorus compounds Oxidising agent Reducing agent

#### Hazardous decomposition products

No data available

## 11. Toxicological information

### Information on toxicological effects

#### **Acute toxicity**

Based on available data, the classification criteria are not met.

CAS No	Components					
	Exposure route	Dose		Species	Source	Method
67-68-5	NATURAL DIMETHYL SULFOXIDE					
	oral	LD50 mg/kg	14500	Rat	Toxicology and Applied Phar., 1969	OECD 401
	dermal	LD50 mg/kg	40000	Rabbit	Annals o.t. NY Academy of Science, 1967	

#### **Irritation and corrosivity**

Based on available data, the classification criteria are not met.

#### **Sensitizing effects**

Based on available data, the classification criteria are not met.

#### **Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

#### **Specific target organ toxicity (STOT) - single exposure**

Based on available data, the classification criteria are not met.

#### **Specific target organ toxicity (STOT) - repeated exposure**

Based on available data, the classification criteria are not met.

Carcinogenicity (OSHA): Not listed.

Carcinogenicity (IARC): Not listed.

Carcinogenicity (NTP): Not listed.

#### **Aspiration hazard**

Based on available data, the classification criteria are not met.

### Information on other hazards

#### **Endocrine disrupting properties**

No information available.

### Further information

The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

## 12. Ecological information

### Ecotoxicity

The product is not: Ecotoxic.

### Persistence and degradability

No data available

### Bioaccumulative potential

No data available

### Mobility in soil

No data available

## Safety Data Sheet

according to 29 CFR 1910.1200(g)

### NATURAL DIMETHYL SULFOXIDE

Revision date: 04/14/2023

Product code: 387500US

Page 6 of 7

#### Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

#### Other adverse effects

No data available

#### Further information

Avoid release to the environment.

### 13. Disposal considerations

#### Waste treatment methods

##### **Disposal recommendations**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation. Dispose of contents/container to industrial incineration plant. Delivery to an approved waste disposal company.

##### **Contaminated packaging**

Wash with plenty of water. Completely emptied packages can be recycled.

### 14. Transport information

#### **U.S. DOT 49 CFR 172.101**

##### Proper shipping name:

No dangerous good in sense of this transport regulation.

#### **Marine transport (IMDG)**

##### UN number or ID number:

No dangerous good in sense of this transport regulation.

##### UN proper shipping name:

No dangerous good in sense of this transport regulation.

##### Transport hazard class(es):

No dangerous good in sense of this transport regulation.

##### Packing group:

No dangerous good in sense of this transport regulation.

#### **Air transport (ICAO-TI/IATA-DGR)**

##### UN number or ID number:

No dangerous good in sense of this transport regulation.

##### UN proper shipping name:

No dangerous good in sense of this transport regulation.

##### Transport hazard class(es):

No dangerous good in sense of this transport regulation.

##### Packing group:

No dangerous good in sense of this transport regulation.

#### Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### Special precautions for user

No dangerous good in sense of this transport regulation.

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No dangerous good in sense of this transport regulation.

### 15. Regulatory information

#### U.S. Regulations

##### State Regulations

##### **Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

### 16. Other information

Revision date: 04/14/2023

Revision No: 100

#### **Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**NATURAL DIMETHYL SULFOXIDE**

Revision date: 04/14/2023

Product code: 387500US

Page 7 of 7

(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 Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

DNEL: Derived No Effect Level

DMEL: Derived Minimal Effect Level

PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate

LL50: Lethal loading, 50%

EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate

NOEC: No Observed Effect Concentration

BCF: Bio-concentration factor

PBT: persistent, bioaccumulative, toxic

vPvB: very persistent, very bioaccumulative

RID: Regulations concerning the international carriage of dangerous goods by rail

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)

EmS: Emergency Schedules

MFAG: Medical First Aid Guide

ICAO: International Civil Aviation Organization

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container

VOC: Volatile Organic Compounds

SVHC: Substance of Very High Concern

For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

**Other data**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.