

**Dimethyl Sulphoxide  
CAS No 67-68-5****MATERIAL SAFETY DATA SHEET  
SDS/MSDS****SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**Product name : **Dimethyl Sulphoxide**

CAS-No. : 67-68-5

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

Identified uses : Laboratory chemicals, Industrial &amp; for professional use only.

**1.3 Details of the supplier of the safety data sheet**Company : Pallav Chemicals & Solvents Pvt. Ltd  
253, Shiv Shakti Industrial Estate, Opp Mittal Estate  
Andheri Kurla Road, Andheri (E), Mumbai - 400050  
INDIATelephone : +91 22 4928 4000  
Email : [sales@pallavchemicals.com](mailto:sales@pallavchemicals.com)**1.4 Emergency telephone number**

Emergency Phone # : +91 22 4928 4000 (9:00am - 6:00 pm) [Office hours]

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture**

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

**2.2 Label elements**

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

**2.3 Other hazards**This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.  
Rapidly absorbed through skin.**SECTION 3: Composition/information on ingredients****3.1 Substances**Synonyms : DMSO  
Methyl sulfoxideFormula : 2H6OS  
Molecular weight : 78,13 g/mol  
CAS-No. : 67-68-5  
EC-No. : 200-664-3

Registration number : 01-2119431362-50-XXXX

No components need to be disclosed according to the applicable regulations.

#### **SECTION 4: First aid measures**

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

###### **General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

###### **If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

###### **In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

###### **In case of eye contact**

Flush eyes with water as a precaution.

###### **If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

#### **SECTION 5: Firefighting measures**

##### **5.1 Extinguishing media**

###### **Suitable extinguishing media**

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

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

Carbon oxides, Sulphur oxides

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

Wear self-contained breathing apparatus for firefighting if necessary.

##### **5.4 Further information**

Use water spray to cool unopened containers.

#### **SECTION 6: Accidental release measures**

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

Avoid breathing vapours, mist or gas. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

##### **6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

##### **6.3 Methods and materials 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). Keep in suitable, closed containers for disposal.

#### 6.4 Reference to other sections

For disposal see section 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

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

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

Store under inert gas. hygroscopic

#### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### Components with workplace control parameters

#### 8.2 Exposure controls

##### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

##### Personal protective equipment

###### Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

###### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

###### Body Protection

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

###### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

###### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

- |                                 |                                           |
|---------------------------------|-------------------------------------------|
| a) Appearance                   | Form: liquid, clear<br>Colour: colourless |
| b) Odour                        | No data available                         |
| c) Odour Threshold              | No data available                         |
| d) pH                           | No data available                         |
| e) Melting point/freezing point | Melting point/range: 16 - 19 °C           |

f) Initial boiling point and boiling range	189 °C
g) Flash point	87 °C - closed cup
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	Upper explosion limit: 42 %(V) Lower explosion limit: 3,5 %(V)
k) Vapour pressure	0,55 hPa at 20 °C
l) Vapour density	2,70 - (Air = 1.0)
m) Relative density	1,1 g/mL
n) Water solubility	completely miscible
o) Partition coefficient: n-octanol/water	log Pow: -2,03
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

## 9.2 Other safety information

Relative vapour density 2,70 - (Air = 1.0)

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Heat, flames and sparks.

### 10.5 Incompatible materials

Acid chlorides, Phosphorus halides, Strong acids, Strong oxidizing agents, Strong reducing agents

### 10.6 Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - 14.500 mg/kg

LC50 Inhalation - Rat - 4 h - 40250 ppm

LD50 Dermal - Rabbit - > 5.000 mg/kg

#### Skin corrosion/irritation

Mild skin irritation

#### Serious eye damage/eye irritation

No data available

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

Mouse

lymphocyte

Cytogenetic analysis

Mouse

lymphocyte

Mutation in mammalian somatic cells.

Rat

Cytogenetic analysis

Mouse

DNA damage

**Carcinogenicity**

Carcinogenicity - Rat - Oral

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Skin and Appendages: Other:

Tumors. Carcinogenicity - Mouse - Oral

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Leukaemia Skin and Appendages: Other: Tumors.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

Reproductive toxicity - Rat - Intraperitoneal

Effects on Fertility: Abortion.

Reproductive toxicity - Rat - Intraperitoneal

Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).

Reproductive toxicity - Rat - Subcutaneous

Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Fertility: Litter size (e.g., # fetuses per litter; measured before birth).

Reproductive toxicity - Mouse - Oral

Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system.

Developmental Toxicity - Mouse - Intraperitoneal

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system.

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

### **Additional Information**

RTECS: PV6210000

Exposure to large amounts can cause: redness of skin, Itching, burning, sedation, Headache, Nausea, Dizziness

## **SECTION 12: Ecological information**

- 12.1 Toxicity**
- |                                                     |                                                                                                        |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------|
|                                                     | LC50 - Pimephales promelas (fathead minnow) - 34.000 mg/l - 96 h                                       |
| Toxicity to fish                                    | LC50 - Oncorhynchus mykiss (rainbow trout) - 35.000 mg/l - 96 h                                        |
|                                                     | EC50 - Daphnia magna (Water flea) - 24.600 mg/l - 48 h<br>(OECD Test Guideline 202)                    |
| Toxicity to daphnia and other aquatic invertebrates | EC50 - Pseudokirchneriella subcapitata (green algae) - 17.000 mg/l - 72 h<br>(OECD Test Guideline 201) |
| Toxicity to algae                                   |                                                                                                        |
- 12.2 Persistence and degradability**
- |                  |                                                                                                                                               |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Biodegradability | Result: 31 % - According to the results of tests of biodegradability this product is not readily biodegradable.<br>(OECD Test Guideline 301D) |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
- 12.3 Bioaccumulative potential**
- No data available
- 12.4 Mobility in soil**
- No data available
- 12.5 Results of PBT and vPvB assessment**
- This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
- 12.6 Other adverse effects**
- No data available
- |                    |                                                         |
|--------------------|---------------------------------------------------------|
| Stability in water | - 0,12 - 1,2 h at 30 °C<br>Remarks: Hydrolyses readily. |
|--------------------|---------------------------------------------------------|

## **SECTION 13: Disposal considerations**

### **13.1 Waste treatment methods**

#### **Product**

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

#### **Contaminated packaging**

Dispose of as unused product.

## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

### 14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

### 14.4 Packaging group

ADR/RID: -

IMDG: -

IATA: -

### 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

### 14.6 Special precautions for user

No data available

## SECTION 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.

: Neither banned nor restricted

International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors

Restrictions on the marketing and use of certain dangerous substances and preparations

: Neither banned nor restricted

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals

: Neither banned nor restricted

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).

: This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out





## **SECTION 16: Other information**

### **Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Pallav Chemicals & Solvents Pvt. Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.pallavchemicals.com](http://www.pallavchemicals.com) for additional terms and conditions of sale.