



SAFETY DATA SHEET

Revision Date **23-Mar-2012**

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name DIMETHYL SULFOXIDE, HPLC/SPECTRO GRADE
Recommended Use For research use only
Registration Number No information available

1.1 Product Identifier

Catalog Number: 300069
Supplier: MP Biomedicals, LLC
29525 Fountain Parkway
Solon, OH 44139
tel: 440-337-1200

Emergency Telephone Number: CHEMTREC: 1-800-424-9300 (1-703-527-3887)

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

2. HAZARDS IDENTIFICATION

GHS - Classification

Acute Dermal Toxicity Category 1

GHS Label elements, including precautionary statements

Physical Hazards None

Risk Combination Phrases

R36/37/38 - Irritating to eyes, respiratory system and skin.

S-phrase(s)

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S25 - Avoid contact with eyes.

S20 - When using do not eat or drink.

Safety Combination Phrases:

S37/39 - Wear suitable gloves and eye/face protection.



Signal Word

Danger

Precautionary Statements

P262 - Do not get in eyes, on skin, or on clothing
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302+ P350 - IF ON SKIN: Gently wash with plenty of soap and water
P310 - Immediately call a POISON CENTRE or doctor/physician
P322 - Specific measures (see .? on this label)
P361 - Remove/Take off immediately all contaminated clothing
P363 - Wash contaminated clothing before reuse
P501 - Dispose of contents/container to an approved waste disposal plant

NFPA rating:

NFPA Health: 2
NFPA Flammability: 2
NFPA Reactivity: 0
NFPA Special Note: -

Precautionary Statements Prevention

Do not get in eyes, on skin, or on clothing. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

General advice Skin

Specific measures (see supplemental first aid instructions on this label).
IF ON SKIN: Gently wash with plenty of soap and water. Immediately call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

Storage Disposal

Store locked up
Dispose of contents of container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms: DMSO; Methyl sulfoxide
Formula: C₂H₆OS
Molecular weight: 78.13

| Chemical Name | EC No. | CAS Number | Weight % | Classification (67/548) | Classification (Reg. 1272/2008) | REACH Registration Number |
|--------------------|-------------------|------------|----------|-------------------------|---------------------------------|---------------------------|
| DIMETHYL SULFOXIDE | EEC No. 200-664-3 | 67-68-5 | 100 | Xi | | No data available |

For the full text of the R phrases and H statements mentioned in this section, see Section 2

4. FIRST AID MEASURES

4.1 Description of first-aid measures

| | |
|-----------------------|--|
| General Advice | If symptoms persist, call a physician. |
| Eye Contact | Do not rub affected area. Get medical attention immediately if irritation persists. |
| Skin Contact | Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. |
| Inhalation | Move to fresh air in case of accidental inhalation of vapors. Immediate medical attention is required. Toxic by inhalation |
| Rinse mouth | Clean mouth with water and afterwards drink plenty of water. |

4.2 Most important symptoms and effects, both acute and delayed

Main Symptoms No information available

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Extinguishing media which must not be used for safety reasons

No information available

5.2 Special hazards arising from the substance or mixture

No information available.

5.3 Advice for firefighters

Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Pay attention to flashback. Ensure adequate ventilation.

See Section 12 for additional information.

6.2 Environmental precautions

Refer to protective measures listed in Sections 7 and 8.

6.3 Methods and materials for containment and cleaning up

DO NOT RELEASE UNNEUTRALIZED ACID

6.4 Reference to other sections

See Section 12 for additional information

7. HANDLING AND STORAGE

Storage

ROOM TEMPERATURE

DESICCATE
STORE UNDER NITROGEN

7.1 Precautions for safe handling

Ensure adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a cool, well-ventilated place

7.3 Specific end uses

Exposure Scenario

No information available

Other Guidelines

No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure Limits

| Chemical Name | Italy | Portugal | The Netherlands | Finland | Denmark |
|--------------------|-------|----------|-----------------|-------------|---|
| DIMETHYL SULFOXIDE | | | | TWA: 50 ppm | TWA: 50 ppm TWA: 160 mg/m ³ |

| Chemical Name | Austria | Switzerland | Poland | Norway | Ireland |
|--------------------|---|---|--------|--------|---------|
| DIMETHYL SULFOXIDE | Skin TWA: 50 ppm TWA: 160 mg/m ³ | Skin TWA: 50 ppm TWA: 160 mg/m ³ STEL: 100 ppm STEL: 320 mg/m ³ | | | |

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

8.2 Exposure controls

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye Protection Tightly fitting safety goggles

Skin and Body Protection Long sleeved clothing

Hand Protection Protective gloves

Respiratory Protection No special protective equipment required.

Other Protective Equipment Impervious clothing.

Environmental Exposure Controls No information available.

Hygiene Measures Provide regular cleaning of equipment, work area and clothing..

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Physical State Liquid.

Physical Property Data

| | |
|----------------------------|---------------------------------|
| pH Value | No data available |
| Flash Point | 95°C/203°F°C |
| Autoignition Temperature | 215°C/419°F |
| Melting/Freezing Point | 18.5°C |
| Boiling Point (°C) | 189°C/372°F |
| Vapor Pressure | 0.55 hPa at 20°C |
| Vapor Density | No information available |
| Water Solubility | Soluble |
| Evaporation Rate | No data available. |
| Flammability (solid, gas) | No data available |
| Flammability Limits in Air | |
| upper flammability limit | No data available |
| lower flammability limit | No data available |
| Density | 1.104 g/cm ³ at 20°C |
| Specific Gravity | No data available. |
| Decomposition Temperature | No data available |
| Viscosity, Kinematic | No data available. |
| Viscosity, Dynamic | No data available. |
| Explosive Properties | No information available. |
| Oxidizing Properties | No information available |
| VOC Content (%) | No information available |

9.2 Other Safety Information

Other Safety Information

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

None under normal processing.

10.4 Conditions to avoid

None in particular

10.5 Incompatible Materials

None in particular

10.6 Hazardous Decomposition Products

None under normal processing.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity Product does not present an acute toxicity hazard based on known or supplied information

Inhalation No information available.

Eye Irritation No information available.

Acute toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

| Chemical Name | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-------------------------------|---------------------|---------------|-----------------|
| DIMETHYL SULFOXIDE 67-68-5 | 14500 mg/kg (Rat) | 40 g/kg (Rat) | |

Mutagenic Effects Contains no ingredient listed as a mutagen.

Carcinogenic Effects None known.

Reproductive Toxicity None known

Developmental Toxicity None known.

Aspiration hazard None known

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

| Chemical Name | Ecotoxicity - Freshwater Algae - Acute Toxicity Data | Ecotoxicity - Freshwater Fish - Acute Toxicity Data | Ecotoxicity - Water Flea - Acute Toxicity Data |
|-------------------------------|--|--|--|
| DIMETHYL SULFOXIDE 67-68-5 | EC50 (96 h) 12350 - 25500 mg/L (Skeletonema costatum) | LC50 (96 h) 41.7g/L (Cyprinus carpio) LC50 (96 h) 40g/L (Lepomis macrochirus) static LC50 (96 h) 34mg/L (Pimephales promelas) LC50 (96 h) 33 - 37g/L (Oncorhynchus mykiss) static | EC50 7000mg/L 24h |

12.2 Persistence and degradability

No data is available on the product itself

12.3 Bioaccumulative potential

No information available

| Chemical Name | Log Pow |
|-------------------------------|---------|
| DIMETHYL SULFOXIDE 67-68-5 | -2.03 |

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors

13. DISPOSAL CONSIDERATIONS

Waste from Residues/Unused Products Dispose of in accordance with local regulations

Contaminated Packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

IMDG/IMO Not regulated

ICAO Not regulated

ICAO/IATA Not regulated

DOT Not regulated

TDG Not regulated
Canada - WHMIS: Classifications B3

MEX Not regulated

15. REGULATORY INFORMATION

International Inventories

| Chemical Name | TSCA | EINECS / ELINCS | DSL / NDSL | PICCS | ENCS | IECSC | AICS | KECL |
|--------------------|--------|-----------------|------------|--------|--------|--------|--------|--------|
| DIMETHYL SULFOXIDE | Listed | Listed | Listed | Listed | Listed | Listed | Listed | Listed |

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances / EU List of Notified Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippine Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

16. OTHER INFORMATION

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text

End of Material Safety Data Sheet

Key literature references and sources for data

www.ChemADVISOR.com/