YUEYANG XIANGMAO MEDICINES & CHEMICALS CO., LTD.

地址: 岳阳市云溪区湖南岳阳绿色化工产业园

Add: Yueyang Chemical Industry Park, Yunxi District, Yueyang city, Hunan, China

www.china-msm.com Tel/Fax: + 86-730-8815329/8216308 13873378292 18973080211 E-mail: xmchem4@china-msm.com

MATERIAL SAFETY DATA SHEET

METHYL SULFONYL METHANE(MSM)

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Methyl Sulfonyl Methane (MSM)

CHEMICAL NAME: Dimethyl Sulfone

SYNONYMS/TRADE NAMES: Methyl sulfone, Methanol sulfonylibis, DMSO2

MOLECULAR FORMULA: (CH₃)₂SO₂

MOLECULAR WEIGHT: 94.13 MANUFACTURER/SUPPLIER:

Yueyang Xiangmao Medcines & Chemicals Co., Ltd.

Add: Yueyang Chemical Industry Park, Yunxi District, Yueyang city, Hunan, China

EMERGENCY HEALTH, SAFETY & ENVIRONMENTAL INFORMATION, CALL:

(86) 730 8815329

EMERGENCY TRANSPORTATION INFORMATION, CALL:

(86) 730 8815329

OTHER INFORMATION, CALL:

(86) 730 8815329

2. COMPOSITION/INFORM ATION ON INGREDIENTS

Ingredients CAS No Weight %

OSHA PEL ACGIH TLV

Methyl Sulfonyl Methane 67-71-0 ≥99.9% Not established

Not established

sanmonMSM

NTP/IARC/OSHA CARCINOGEN: No

EC Classifications: None Required

3. HAZARDS IDENTIFICATION

WARNING! COMBUSTIBLE LIQUID AND VAPOR

PHYSICAL APPEARANCE: White crystalline flakes or powder

ODOR: Essentially odorless

EFFECTS OF OVEREXPOSURE:

Inhalation: A nuisance dust that may cause respiratory irritation due to its

physical form.



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Eyes: The physical form of the chemical could be mechanically irritating to the

Skin: Non-irritating.

Ingestion: Undetermined in humans but generally considered to be of low

toxicity (oral rat LD₅₀: 17,000mg/kg).

HMIS AND NFPA HAZARD RATINGS: Health - 1, Flammability - 1, Chemical

Reactivity - 0

Note: HMIS and NFPA ratings involve data and interpretations that may vary from company to company. In both cases the lower the number, the less the hazard. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

4. FIRST AID MEASURES

Eve Contact:

Flush thoroughly with running water (including under eyelids) for at least 15 minutes. If irritation persists after flushing, seek medical attention.

Skin Contact:

Wash skin if irritation occurs.

Ingestion:

Do not induce vomiting. Allow the victim to rinse his mouth and then to drink 2-4 cupfuls of water. If significant amounts of the product have been ingested, consult a physician.

Note to Physicians: Treat symptomatically and supportively.

Inhalation:

Remove to fresh air. If breathing has stopped, provide artificial respiration and seek medical attention.

5. FIRE-FIGHTING MEASURES

Flashpoint and method:

143°C (290°F) closed cup

Flammable Limits (% in air):

LEL: Undetermined UEL: Undetermined

Autoignition Temperature:

Undetermined

Extinguishing Media:

Foam, carbon dioxide, dry powder, and water spray.

Special protective equipment for fire-fighters:

Wear a Self-Contained Breathing Apparatus (SCBA).

Special Exposure Hazards:

Burning methyl sulfonyl methane produces poisonous gases (sulfur oxides).



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6. ACCIDENTAL RELEASE MEASURES

Spill, Leak, or Release:

Note: Review sections 3, 4, 5 and 8 of this MSDS before proceeding with clean up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up.

Initial Containment: If a spill occurs, immediately consult your environmental supervisor.

Spill Clean-up Methods:

Spills may be swept up and incinerated or diluted and flushed to wastewater treatment. Do not allow the material to enter streams or waterways.

7. HANDLING AND STORAGE

Usage/Handling Precautions:

Avoid contact with eyes or skin. Do not smoke in areas of storage or use.

Skin or clothing that become contaminated should be immediately washed or showered.

Storage Precautions:

Store away from strong oxidizing agents in a well ventilated cool and dry location.

Protect containers from physical damage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:

ACGIH Threshold Limit Value (TLV): not established

OSHA (USA) Permissible Exposure Limit (PEL, 1989 Table Z-1-A values or

section-specific standards): not established

Ventilation:

Use adequate general or local exhaust ventilation to keep airborne concentration low.

Respiratory Protection:

Any particulate respirator in dusty atmospheres.

Eye Protection:

Safety glasses/ chemical goggles. Eye wash stations are desirable near use areas.

Skin Protection:

Any rubber or vinyl gloves.

General: Other protective equipment such as face shields, aprons, rubber boots or rubber

may be needed in some situations.

Recommended Decontamination Facilities:

Water washing facilities

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: White crystalline powder or flakes

Odor: Essentially odorless



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Specific Gravity: 1.450-1.455 (26 C) **Vapor Pressure:** Not applicable

Vapor Density (Air = 1): Not applicable

Evaporation rate: Not applicable

% Volatiles: 0

Boiling Point: 248 °C (478 °F)

Freezing Point: 108-110 °C (225-230 °F)

Viscosity: Not applicable

Solubility in water: 33.9% w/w at 79 F **Flammability properties:** See section 5

10. STABILITY AND REACTIVITY

Stability: Stable under normal temperature and storage conditions.

Materials to avoid: Strong oxidizing agents, perchloric acid and perchlorates.

Hazardous decomposition products: Sulfur dioxide and carbon monoxide fumes can be

evolved.

Hazardous polymerization: Will not occur

11. TOXICOLOGICAL INFORMA TION

Data for Methyl Sulfonyl Methane:

Acute Toxicity Data:

Oral LD-50 (male rat): 17,000 mg/kg

Inhalation: Not available

Skin: Not available **Eve:** Not available

Chronic/Subchronic Toxicity Data: Not available

Mutagenicity: Not available Reproduction: Not available Teratology: Not available

Carcinogenicity: None of the components present in this material at concentrations equal or greater than 0.1% are listed by IARC, NTP, OSHA, or ACGIH as a carcinogen.

12. ECOLOGICAL INFORMATION

quatic Toxicity: Not available

Chemical Fate Information: Not available



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13. DISPOSAL CONSIDERATIONS

Disposal Methods

See section 6. Consult federal, state or local authorities for proper disposal procedures.

14. TRANSPORT INFORMATION

DOT (USA) Status:

Proper shipping name: Chemical, NOS

(Methyl Sulfonyl Methane)

Hazard Class: Not hazardous by DOT Regulations in 49CFR

UN/NA Number: Not available Reportable Quantity: N/A

DOT Placards: None

DOT Labels: None **Quantity limitations:** None

15. REGULATORY INFORMATION

This document has been prepared in accordance with the MSDS requirements of the OSHA

Hazard Communication Standard 29 CFR 1910.1200.

Occupational Safety and Health Administration "OSHA" hazardous chemical(s): Dimethyl sulfone

IARC - International Agency for Research on Cancer Carcinogenicity Classification (components present at 0.1% or more): Not Listed

 ${\bf ACGIH\ -\ American\ Conference\ of\ Governmental\ Industrial\ Hygienists:\ Not\ Listed}$

NTP - National Toxicology Program: Listed

Reporting requirements of Section 313 or Title III of the superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372: None

TSCA - US Toxic Substances Control Act: This product is listed on the TSCA inventory. EC Classification and User Label Information (Council Directive 67/548/EEC):

Hazard Symbols and Risk Phrases: None

16.LABELLING AND PACKING OF SUBSTANCES AND MIXTURES

All followed EU Regulation 1907/EC as ammended classification acc. Regulation EC No. 1272/2008.