1. PRODUCT AND COMPANY IDENTIFICATION

Product name: di[2(H)]Methyl] sulfoxide
Product Number: 238634
Brand: Aldrich
Product Use: For laboratory research purposes.
Supplier: Sigma-Aldrich Corporation
Manufacturer: Sigma-Aldrich Corporation
350 Spruce Street
SAINT LOUIS MO 63103
USA

Telephone: +1 800-325-5832
Fax: +1 855-225-5425
Emergency Phone #: (314) 706-6555
Preparation Information: Sigma-Aldrich Corporation
Product Safety - Americas Region
1-800-521-0956

2. HAZARDS IDENTIFICATION

Emergency Overview
OSHA Hazards
Combustible Liquid, Target Organ Effect
Target Organs
Eyes, Skin
GHS Classification
Flammable liquids (Category 4)
Skin irritation (Category 2)
Eye irritation (Category 2B)

GHS Label elements, including precautionary statements
Pictogram: none
Signal word: Warning
Hazard statement(s)
H227 Combustible liquid
H316 Causes mild skin irritation
H335 Causes eye irritation.

Precautionary statement(s)
P305 + P358 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

HMIS Classification
Health hazard: 0
Chronic Health Hazard: 0
Flammability: 2
Physical hazards: 0

NFPA Rating
Health hazard: 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: Hexa deuteromethyl sulfoxide
(Methyl sulfoxide) d6
(Methyl sulfoxide)-d6
DMSO-d6
DMSO-d9

Formula: C9H9OS C9D9O9
Molecular Weight: 64.17 g/mol/84.17 g/mol

CAS-No.: 228-27-1
EC-No.: 218-917-0
Index-No.: -
Concentration: -

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

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
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

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

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
For small (recipient) 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.

Special protective equipment for fire-fighters
Wear self-contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sulphur oxides
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sulphur oxides

Further Information
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES
7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition. - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Store under inert gas, hygroscopic

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

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) respiratory 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).

Hand 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.

Eye 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 and 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.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form - liquid
Colour - no data available

Safety data
pH - no data available
Mellting/freezing point - 18.4 °C (65.1 °F)
Boiling point - 189 °C (372 °F) - lit.

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
no data available

Conditions to avoid
Heat, flames and sparks.

Materials to avoid
Acid chlorides, Phosphorus halides, Strong acids, Strong oxidizing agents, Strong reducing agents

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sulphur oxides
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sulphur oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity
Oral LD50
LD50 Oral - rat - 14,000 mg/kg

Inhalation LC50
no data available

Dermal LD50
LD50 Dermal - rat - 40,000 mg/kg

Other information on acute toxicity
no data available

Skin corrosion/irritation
Skin - rabbit - Mild skin irritation - 24 h

Serious eye damage/eye irritation
Eyes - rabbit - Mild eye irritation - 24 h
Respiratory or skin sensitization
no data available

Germ cell mutagenicity
no data available

Carcinogenicity
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.

AGG: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by AGG.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
no data available

Teratogenicity
no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion: May be harmful if swallowed.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects
no data available

Additional Information
RTECS: Not available

12. ECOLOGICAL INFORMATION

Toxicity
no data available

Parasitism and degradation
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

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.

Contaminated packaging
Dispose of as unused product.

15. TRANSPORT INFORMATION

DOT (US)
NA Number: 1993 Class: CIB
Packing Group III
Proper shipping name: Combustible liquid, n.o.s. (dihydroxyethyl) sulfoxide
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG
Not dangerous goods

IATA
Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards
Combustible Liquid, Target Organ Effect

DSL Status
All components of this product are on the Canadian DSL list.

SARA 302 Components
SARA 307: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Fire Hazard, Chronic Health Hazard

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right To Know Act.

Pennsylvania Right To Know Components

CAS No. 2206-27-1

New Jersey Right To Know Components

CAS No. 2206-27-1

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

15. OTHER INFORMATION

Further information
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