

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

Product name : Dimethyl sulfate-d6

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

According to Regulation (EC) No1272/2008

Carcinogenicity (Category 1B)

Germ cell mutagenicity (Category 2)

Acute toxicity, Inhalation (Category 2)

Acute toxicity, Oral (Category 3)

Skin corrosion (Category 1B)

Skin sensitization (Category 1)

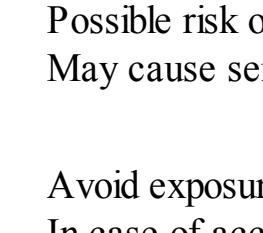
According to European Directive 67/548/EEC as amended.

Causes burns. May cause cancer. Possible risk of irreversible effects. May cause sensitization by skin contact.

Very toxic by inhalation. Toxic if swallowed.

Label elements

Pictogram



Signal word

Danger

Hazard statement(s)

H301 Toxic if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H330 Fatal if inhaled.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

Precautionary statement(s)

P201 Obtain special instructions before use.

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P284 Wear respiratory protection.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Hazard symbol(s)

T+ Very toxic

R-phrase(s)

R45 May cause cancer.

R25 Also toxic if swallowed.

R26 Also very toxic by inhalation.

R34 Causes burns.

R68 Possible risk of irreversible effects.

R43 May cause sensitization by skin contact.

S-phrase(s)

S53 Avoid exposure - obtain special instructions before use.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Restricted to professional users.

Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : (Methyl sulfate)-d6

(Methyl sulfate)-d6

Formula : C2D6O4S C2D6O4S

Molecular Weight : 132,17 g/mol 132,17 g/mol

CAS-No.	EC-No.	Classification	Concentration
15199-43-6	239-257-0	-	-
Dimethyl sulfate-d6		Carc. 1B; Mut. 2; Acute Tox. 2; Acute Tox. 3; Skin Corr. 1B; Skin Sens. 1; H301, H314, H317, H330, H341, H350	
Germ cell mutagenicity		T+; Carc. Cat. 2, Mut. Cat. 3, R45 - R25 - R26 - R34 - R43	
Mut.		- R68	

15199-43-6

239-257-0

Carc. 1B; Mut. 2; Acute Tox. 2; Acute Tox. 3; Skin Corr. 1B; Skin Sens. 1; H301, H314, H317, H330, H341, H350

T+; Carc. Cat. 2, Mut. Cat. 3, R45 - R25 - R26 - R34 - R43

- R68

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. 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

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. 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 (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.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions

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

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.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid exposure - obtain special instructions before use. 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

Store in cool place. 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

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) 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).

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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Eye protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form clear, liquid

Colour colourless

Safety data

pH no data available

Melting point -32 °C - lit.

Boiling point 188 °C - lit.

Flash point 83 °C - closed cup

Ignition temperature no data available

Lower explosion limit no data available

Upper explosion limit no data available

Density 1,397 g/mL at 25 °C

1,397 g/cm3 at 25 °C

Water solubility no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable Stable under recommended storage conditions.

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

no data available

Hazardous decomposition products

under fire conditions. - Carbon oxides, Sulphur oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

May cause sensitization by inhalation.

no data available

May cause an allergic skin reaction.

no data available

Germ cell mutagenicity

no data available

In vitro test showed mutagenic effects

no data available

Carcinogenicity

Possible human carcinogen

IARC: 2A - Group 2A: Probably carcinogenic to humans (Dimethyl sulfate-d6)

WHO: 1B: Group 2A: Probably carcinogenic to humans (Dimethyl sulfate-d6)

EU: 1B: Group 2A: Probably carcinogenic to humans (Dimethyl sulfate-d6)

US: 1B: Group 2A: Probably carcinogenic to humans (Dimethyl sulfate-d6)

Canada: 1B: Group 2A: Probably carcinogenic to humans (Dimethyl sulfate-d6)

Proprietary: 1B: Group 2A: Probably carcinogenic to humans (Dimethyl sulfate-d6)

Other: 1B: Group 2A: Probably carcinogenic to humans (Dimethyl sulfate-d6)

EU: 1B: Group 2A: Probably carcinogenic to humans (Dimethyl sulfate-d6)

US: 1B: Group 2A: Probably carcinogenic to humans (Dimethyl sulfate-d6)

Canada: 1B: Group 2A: Probably carcinogenic to humans (Dimethyl sulfate-d6)

Proprietary: 1B: Group 2A: Probably carcinogenic to humans (Dimethyl sulfate-d6)

Other: 1B: Group 2A: Probably carcinogenic to humans (Dimethyl sulfate-d6)

EU: 1B: Group 2A: Probably carcinogenic to humans (Dimethyl sulfate-d