

# SAFETY DATA SHEET

Version 8.6 Revision Date 22.11.2022 Print Date 22.02.2023

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifiers

Product name : Dimethyl sulfoxide-D6 with TMS (0.1 vol.%),

deuteration degree min. 99.9% for NMR

spectroscopy MagniSolv™

Product Number : 1.03587 Catalogue No. : 103587 Brand : Millipore

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

Identified uses : Reagent for analysis

1.3 Details of the supplier of the safety data sheet

Company : SIGMA-ALDRICH CANADA LTD.

2149 WINSTON PARK DRIVE OAKVILLE ON L6H 6J8

CANADA

Telephone : +1 905 829-9500 Fax : +1 905 829-9292

1.4 Emergency telephone

Emergency Phone # : 800-424-9300 CHEMTREC (USA)

+1-703-527-3887 CHEMTREC

(International)

24 Hours/day; 7 Days/week

## **SECTION 2: Hazards identification**

# 2.1 Classification of the substance or mixture

# GHS Classification in accordance with Hazardous Products Regulations (HPR) (SOR/2015-17)

Flammable liquids (Category 4), H227

Short-term (acute) aquatic hazard (Category 3), H402

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

# 2.2 GHS Label elements, including precautionary statements

Pictogram none

Signal Word Warning



Hazard statement(s)

H227 Combustible liquid. H402 Harmful to aquatic life.

Precautionary statement(s)

P210 Keep away from heat, hot surfaces, sparks, open flames and

other ignition sources. No smoking.

P273 Avoid release to the environment.

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

protection.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant

foam to extinguish.

P403 Store in a well-ventilated place.

P501 Dispose of contents/ container to an approved waste disposal

plant.

# 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

- none

# **SECTION 3: Composition/information on ingredients**

#### 3.2 Mixtures

Component		Classification	Concentration *	
di[(2H3)methyl] sulphoxide				
CAS-No. EC-No.	2206-27-1 218-617-0	Flam. Liq. 4; Aquatic Acu 3; H227, H402	>= 80 - <= 100 %	
* Weight %				

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

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

# 4.1 Description of first-aid measures

### If inhaled

After inhalation: fresh air.

# In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

#### If swallowed

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

## 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

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# 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

Foam Carbon dioxide (CO2) Dry powder

# Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

# 5.2 Special hazards arising from the substance or mixture

Carbon oxides

Sulfur oxides

Combustible.

Fire may cause evolution of:

Sulfur oxides

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

# 5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

#### 5.4 Further information

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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

## 6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

## 6.2 Environmental precautions

Do not let product enter drains.

#### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb® ). Dispose of properly. Clean up affected area.

## 6.4 Reference to other sections

For disposal see section 13.

# **SECTION 7: Handling and storage**

#### 7.1 Precautions for safe handling

Advice on protection against fire and explosion



Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

## **Hygiene measures**

Change contaminated clothing. Wash hands after working with substance. For precautions see section 2.2.

# 7.2 Conditions for safe storage, including any incompatibilities

# Storage conditions

Tightly closed.

# Storage class

Storage class (TRGS 510): 10: Combustible liquids

## 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

# Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

# 8.2 Exposure controls

# **Appropriate engineering controls**

Change contaminated clothing. Wash hands after working with substance.

# Personal protective equipment

# Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

## Skin protection

not required

#### **Respiratory protection**

Not required; except in case of aerosol formation.

#### **Control of environmental exposure**

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

Color: colorless

b) Odor
c) Odor Threshold
d) pH
e) Melting
No data available
No data available
No data available

point/freezing point



f)	Initial boiling point and boiling range	No data available
g)	Flash point	88 °C (190 °F)
h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Upper/lower flammability or explosive limits	No data available
k)	Vapor pressure	No data available
l)	Vapor density	No data available
m)	Density	No data available
	Relative density	No data available
n)	Water solubility	No data available
0)	Partition coefficient: n-octanol/water	No data available
p)	Autoignition 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

No data available

# **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

Forms explosive mixtures with air on intense heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

## **10.2 Chemical stability**

The product is chemically stable under standard ambient conditions (room temperature) .

# 10.3 Possibility of hazardous reactions

No data available

#### 10.4 Conditions to avoid

Strong heating.

# 10.5 Incompatible materials

No data available

# 10.6 Hazardous decomposition products

In the event of fire: see section 5



# **SECTION 11: Toxicological information**

# 11.1 Information on toxicological effects

#### Mixture

# **Acute toxicity**

Oral: No data available Inhalation: No data available Dermal: No data available

## Skin corrosion/irritation

No data available

# Serious eye damage/eye irritation

No data available

# Respiratory or skin sensitization

No data available

# Germ cell mutagenicity

No data available

#### Carcinogenicity

No data available

# Reproductive toxicity

No data available

# Specific target organ toxicity - single exposure

No data available

# Specific target organ toxicity - repeated exposure

No data available

## **Aspiration hazard**

No data available

#### 11.2 Additional Information

Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately.

#### **Components**

# di[(2H3)methyl] sulphoxide

#### **Acute toxicity**

LD50 Oral - Rat - male and female - 28,300 mg/kg (OECD Test Guideline 401) LC0 Inhalation - Rat - male and female - 4 h - > 5.33 mg/l - aerosol (OECD Test Guideline 403) LD50 Dermal - Rat - 40,000 mg/kg Remarks: (RTECS)

Skin corrosion/irritation

Skin - Rabbit

Result: slight irritation - 4 h



(OECD Test Guideline 404)

# Serious eye damage/eye irritation

Eyes - Rabbit

Result: slight irritation (OECD Test Guideline 405)

# Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative

(OECD Test Guideline 406)
In animal experiments: - Mouse

Result: negative

(OECD Test Guideline 429)

# Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Test Type: Mutagenicity (mammal cell test):

Result: negative

Test Type: Mutagenicity (mammal cell test): chromosome aberration.

Result: negative

Method: OECD Test Guideline 474 Species: Rat - male and female

Result: negative **Carcinogenicity** 

Carcinogenicity - No indication of carcinogenic activity. (IUCLID)

# Reproductive toxicity

No data available

# Specific target organ toxicity - single exposure

No data available

## Specific target organ toxicity - repeated exposure

No data available

#### **Aspiration hazard**

No data available

# **SECTION 12: Ecological information**

#### 12.1 Toxicity

# **Mixture**

No data available

## 12.2 Persistence and degradability

No data available

# 12.3 Bioaccumulative potential

No data available

# 12.4 Mobility in soil

No data available



#### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

# 12.6 Endocrine disrupting properties

No data available

#### 12.7 Other adverse effects

No data available

# **Components**

# di[(2H3)methyl] sulphoxide

Toxicity to fish static test LC50 - Danio rerio (zebra fish) - > 25,000 mg/l - 96

h

(OECD Test Guideline 203)

Toxicity to daphnia static test EC50 - Daphnia magna (Water flea) - 24.6 mg/l - 48

h

and other aquatic

invertebrates

(OECD Test Guideline 202)

Toxicity to algae static test EC50 - Pseudokirchneriella subcapitata (green algae)

- 17,000 mg/l - 72 h

(OECD Test Guideline 201)

Toxicity to bacteria EC10 - Pseudomonas putida - 7,100 mg/l - 16 h

Remarks: (IUCLID)

EC50 - activated sludge - 10 - 100 mg/l - 30 min

Remarks: (IUCLID)

## **SECTION 13: Disposal considerations**

## 13.1 Waste treatment methods

#### **Product**

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

## **SECTION 14: Transport information**

#### TDG

Not regulated as a dangerous good

#### **IMDG**

Not dangerous goods

#### **IATA**

Not dangerous goods



#### **SECTION 15: Regulatory information**

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

#### **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. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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