SAFETY DATA SHEET

Version: v1
Revision Date: 2023-10-30
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SECTION 1:Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name	: Dimethyl sulfoxide
Product Number	: D119415
Brand	: aladdin
CAS-No.	: 67-68-5

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

Identified uses	: Laboratory chemicals,Manufacture of substances.

1.3 Details of the supplier of the safety data sheet

Company	: Shanghai Aladdin Biochemical Tech Co.,Ltd
Address	: 36 Xinjinqiao Road, Shanghai
Telephone	: 400-620-6333
Fax	: no data available

1.4 Emergency telephone number

Emergency Phone	: 0532-83889090

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquid (category 4), H227

2.2 GHS Label elements, including precautionary statements

Pictogram	no data available
Signal word	Warning
Hazard statement(s)	
H227	Combustible liquid
Precautionary statement(s)	
P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P370+P378	In case of fire: Use ... to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to an approved waste disposal plant.

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

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: DMSO Methyl sulfoxide
Formula	: C2H6SO
Molecular weight	: 78.13
CAS No.	: 67-68-5
EC-NO.	: 200-664-3

Component	Classification	Concentration
Dimethyl sulfoxide		
	Flammable liquid (category 4), H227	for spectroscopy,>99.9% (GC)

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

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

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

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

Water foam carbon dioxide (CO2) dry powder

Unsuitable extinguishing media

no data available

5.2 Special hazards arising from the substance or mixture

Carbon oxides sulfur oxides are combustible. Vapor is heavier than air, so it can spread on the ground. Forms explosive mixtures with air under rapid heating. Forms explosive mixtures with air under rapid heating. Hazardous gases or vapors may be generated in the event of a fire.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel Do not inhale vapors or aerosols. Keep away from heat and fire sources. Evacuate dangerous areas, follow emergency procedures, and seek expert opinions. 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 dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Keep away from open flames, hot surfaces and ignition sources. Take measures to prevent electrostatic discharge. Change contaminated clothing. Wash hands after using this substance. For precautions, see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Tightly closed. Inflatable to store Hygroscopic

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

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

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as
NIOSH (US) or EN166(EU).

Skin protection

Gloves must be checked before use. Please use proper methods to remove the gloves (do not touch the outer surface of the gloves), and avoid any skin parts contacting the product. After use, please handle the contaminated gloves carefully according to relevant laws and regulations and effective laboratory rules and procedures. Please clean and blow dry the protective gloves selected for your hands must meet the specifications given in regulation (EU) 2016 / 425 and the en 374 standard derived from it.

Body Protection

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

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface 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).

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	no data available
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	18.4°C

f) Initial boiling point and boiling range	189°C
g) Flash point	87℃
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	no data available
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

9.2 Other safety information

no data available

SECTION 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

no data available

10.4 Conditions to avoid

Strong heating

10.5 Incompatible materials

Acid chloride, phosphorus-containing halide, strong acid, strong oxidant, strong reducing agent

10.6 Hazardous decomposition products

no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

(OECD Test Guideline 403)

LD50 transdermal-rat-male and female-40,000 mg/kg

Remarks: (ECHA)

Skin corrosion/irritation
Skin-Rabbit Result: Mild irritation-4 h (OECD Test Guideline 404)
Serious eye damage/eye irritation
Eyes-Rabbit Result: Mild irritation-24 h (OECD Test Guideline 405)
Respiratory or skin sensitisation
Maximum Response Test-Guinea Pig Result: Negative (OECD Test Guideline 406) Local Lymph Node Test (LLNA)-Mouse Result: Negative (OECD Test Guideline 429)
Germ cell mutagenicity
Test type: Ames test Test system: Salmonella typhimurium Metabolic activation: With or without metabolic activation Method: OECD Test Guideline 471 Result: Negative test type: Sister chromatid exchange test Test system: Chinese hamster ovary cell metabolism activation: Yes or No metabolic activation method: OECD Test Guideline 479 Result: Negative Test Type: Mutagenicity (mammalian cell test): Chromosome mutation negative. Test system: Chinese hamster ovary cell metabolism activation: with or without metabolic activation Method: OECD test Guideline 473 Result: Negative Test Type: Mutagenicity (in vivo mammalian bone marrow cell genetic test, chromosome analysis) Species: Rat Application route: Intraperitoneal method: OECD Test Guideline 474 Result: Negative
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
Additional Information
Repeated exposure toxicity-Rat-Male and female-Oral-18 months-No harmful effect observed-3,300 mg/kg-Observed

The lowest level of harmful effects-9,900 mg/kg

Repeated exposure toxicity-monkey-male and female-percutaneous-18 months-no harmful effects observed->= 8,910 mg/kg-observed

To the lowest level of harmful effects-990 mg/kg

Registration of Toxic Effects of Chemical Substances: PV6210000

Excessive exposure can cause:, red skin, itching, burns, sedation, headache, nausea, dizziness

As far as we know, the chemical, physical and toxic properties have not been fully studied.

SECTION 12: Ecological information

12.1 Toxicity

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

(OECD Test Guideline 203)

No ridge to water flea and other aquatic species

Toxicity of Vertebral Animals

Static test EC50-Daphnia magna (Water flea)-24,600 mg/l-48 h

(OECD Test Guideline 202)

Toxicity to algae static test ErC50-Pseudokirchneriella subcapitata (green algae)-17,000 mg/l-72 h

(OECD Test Guideline 201)

Toxicity to bacteria EC50-activated sludge-10-100 mg/l-30 minutes

(ISO 8192)

12.2 Persistence and degradability

Aerobic-Exposure time 28 d Result: 31%-Not easily biodegradable quickly. (OECD Test Guideline 301D)

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

Stability in water-0.12-1.2 h at 30 °C pH 7

SECTION 13:

13.1 Disposal considerations

Product

ecycle to process, if possible. Consult your local regional authorities and an expert of disposal. You may be able to dissolve or mix material with a combustible solvent and little by little burn in a chemical incinerator equipped with an afterburner and scrubber system. If a large amount of the substance is burned at a time, an explosion may occur. Observe all federal, state and local regulations when disposing of the substance.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

UN number: no data available	Packing group: no data available	Class: no data available
Proper shipping name: Not dangerous goods	Reportable Quantity(RQ): no data available	Poison Inhalation Hazard: no data available
Environmental Hazards: No		

IMDG

UN number: no data available	Packing group: no data available	EMS-No: no data available
Proper shipping name: Not dangerous goods		

IATA

UN number: no data available	Packing group: no data available	Class: no data available
Proper shipping name: Not dangerous goods		

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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. Aladdin Co. Ltd. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

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