

SAFETY DATA SHEET

Version: v1

Revision Date: 2025-09-24

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

1.1 Product identifiers

Product name : Sulfuric acid-d2 solution
Product Number : S102269
Brand : aladdin
CAS-No. : 13813-19-9

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

Identified uses : Laboratory chemicals, Manufacture of substances.

1.3 Company

Company : ALADDIN SCIENTIFIC CORPORATION
Address : 14078 Meridian Parkway,
Riverside, CA. 92518
Telephone : +1 (833) 552-7181
Fax : no data available

1.4 Emergency telephone number

CHEMTREC®, Inside the USA : 1-800-424-9300
CHEMTREC®, Outside the USA :

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Metal Corrosive Substance (Category 1), H290

Acute Toxicity, Oral (Category 5), H303

Skin corrosion/irritation (category 1A), H314

Serious eye injury/eye irritation (Category 1), H318

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H290

May be corrosive to metals

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H303	May be harmful if swallowed
H314	Causes severe skin burns and eye damage
Precautionary statement(s)	
P234	Keep only in original container.
P264	Wash hands [and ...] thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P310	Immediately call a POISON CENTER or doctor/physician.
P312	Call a POISON CENTER or doctor/... if you feel unwell.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P405	Store locked up.
P406	Store in corrosive resistant/... container with a resistant inner liner.
P501	Dispose of contents/container to an approved waste disposal plant.
P304+P340+P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

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

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: Dideuterosulfuric acid solution
Formula	: D2SO4/D2O
Molecular weight	: 100.09
CAS No.	: 13813-19-9
EC-NO.	: 237-464-0

Component	Classification	Concentration
Sulfuric acid-d2 solution		
	no data available	≥99.5 atom% D, 96% IN D2O

SECTION 4: First aid measures

4.1 Description of 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

Take off contaminated clothing and shoes immediately. 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. Continue rinsing eyes during transport to hospital.

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

no data available

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**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media

no data available

5.2 Special hazards arising from the substance or mixture

no data available

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Minor leakage: Collect the leaked liquid as much as possible in a sealable container. Absorb with sand, activated carbon, or other inert materials and transfer to a safe location. Do not flush into the sewer. Massive leakage: Construct embankments or dig pits to contain it. Close the drainage pipeline. Cover with foam to inhibit evaporation. Transfer to a tanker or dedicated collector using an explosion-proof pump, and recycle or transport to a waste disposal site for disposal.

6.4 Reference to other sections

no data available

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Operators should receive specialized training and strictly follow operating procedures. The operation and disposal should be carried out in places with local ventilation or comprehensive ventilation facilities. Avoid contact between eyes and skin, and avoid inhaling vapors. See Part 8 for individual protective measures. Keep away from sources of fire and heat, and smoking is strictly prohibited in the workplace. Use explosion-proof ventilation systems and equipment. If canning is required, the flow rate should be controlled and there should be a grounding device to prevent static electricity accumulation. Avoid contact with prohibited compounds such as oxidants (see Part 10 for prohibited compounds). Handle with care during transportation to prevent damage to packaging and containers. Empty containers may contain residual harmful substances. Wash hands after use and prohibit eating or drinking in the workplace. Equip with corresponding types and quantities of fire-fighting equipment and emergency response equipment for leaks.

7.2 Conditions for safe storage, including any incompatibilities

Easy to absorb moisture; Sensitive to light, avoid light, store with argon filling

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

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 protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves 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.

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.

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).

Control of environmental exposure

no data available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	form: liquid color: colorless
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	no data available
f) Initial boiling point and boiling range	290°C
g) Flash point	no data available
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	1.87
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

Organic materials, Powdered metals, Bases, Halides

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions.- Sulphur oxides

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

LD50 Oral - Rat - Male and Female -2140 mg/kg

Remarks: (ECHA)

Corresponding values have been specified for the following substances: sulfuric acid

Inhalation: Corrosion of respiratory system.

Transcutaneous: No data available

Skin corrosion/irritation

Skin - Rabbit Result: There is severe corrosion and damage to the tissue. Note: (IUCLID) Corresponding values have been specified for the following substances: sulfuric acid

Serious eye damage/eye irritation

Note: Causing serious eye damage. Corresponding values have been specified for the following substances: sulfuric acid

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

The International Agency for Research on Cancer (IARC) has demonstrated that occupational exposure to strong inorganic acid mist, including sulfuric acid, is a human carcinogen (Group 1)

Reproductive toxicity

no data available

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Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

May be fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Additional Information

This substance causes significant damage to mucosal tissue, upper respiratory tract, eyes, and skin. Inhaling steam can cause spasms, inflammation, bronchitis, and inhalation may cause pulmonary edema and pneumonia. To our knowledge, the chemical, physical, and toxic properties of this substance have not been fully studied.

SECTION 12: Ecological information**12.1 Toxicity****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

no data available

12.6 Other adverse effects

no data available

SECTION 13:**13.1 Disposal considerations****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

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SECTION 14: Transport information

DOT (US)

UN number: 1830

Packing group: II

Class: 8

Proper shipping name: SULPHURIC
ACID

Reportable Quantity(RQ): no data
available

Poison Inhalation Hazard: no data
available

Environmental Hazards: no data available

IMDG

UN number: 1830

Packing group: II

EMS-No: no data available

Proper shipping name: SULPHURIC ACID

IATA

UN number: 1830

Packing group: II

Class: 8

Proper shipping name: SULPHURIC ACID

SECTION 15: Regulatory information

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

SECTION 16: Other information

Prepared By

Regulatory Affairs

ALADDIN SCIENTIFIC CORPORATION

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SDS sections updated v1

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