

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

SAFETY DATA SHEET

Version: v1

Revision Date: 2025-06-24

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

1.1 Product identifiers

Product name : 2-Mercaptobenzothiazole
Product Number : M1217837
Brand : aladdin
CAS-No. : 149-30-4

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)

Acute Toxicity, Oral (Category 5), H303

Skin allergy (category 1), H317

Acute (short-term) aquatic hazard (Category 1), H400

Long term aquatic hazard (Category 1), H410

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

H303

May be harmful if swallowed

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H317	May cause an allergic skin reaction
H410	Very toxic to aquatic life with long lasting effects
Precautionary statement(s)	
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P312	Call a POISON CENTER or doctor/... if you feel unwell.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P302+P352	IF ON SKIN: wash with plenty of water.
P333+P313	IF SKIN irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/container to an approved waste disposal plant.

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

Very toxic to aquatic life with long lasting effects;Cancer

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: 2-Benzothiazolethiol; Benzothiazole-2-thiol
Formula	: C7H5NS2
Molecular weight	: 167.25
CAS No.	: 149-30-4
EC-NO.	: 205-736-8

Component	Classification	Concentration
2-Mercaptobenzothiazole	no data available	≥98%, White Powder

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

Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

In case of skin contact

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

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In case of eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. Keep eye wide open while rinsing.

If swallowed

Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

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 Nitrogen oxides Sulfur oxide Flammable Steam is heavier than air, so it can spread over the ground. Under rapid heating, it forms an explosive mixture with air When caught on fire, it may cause the production of hazardous gases or vapors

5.3 Advice for firefighters

wear self-contained breathing and full protective gear.

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

Ensure adequate ventilation. Use personal protective equipment as required.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed Up containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation.

7.2 Conditions for safe storage, including any incompatibilities

Sensitive to air; 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

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

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 Regulation (EU)2016/425 and the standard EN 374 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 particle respirator type N100 (US) or type P3 (EN 143) 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

If safety requires, prevent further leakage or spillage. Do not let the product enter the sewer.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	form: Powder Solid color: White
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	178.0to183.0°C
f) Initial boiling point and boiling range	>260°C
g) Flash point	243 °C
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	1.42
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

Possible violent reactions may occur with it: strong oxidant

10.4 Conditions to avoid

Avoid dust formation.

10.5 Incompatible materials

Strong oxidizing agents

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10.6 Hazardous decomposition products

Nitrogen oxides (NO_x), Carbon monoxide (CO), Carbon dioxide (CO₂), Sulfur oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - Male and Female -3800 mg/kg

Remarks: (ECHA)

Symptoms: Irritation of the oral cavity, throat, esophagus, and digestive tract mucosa

LC50 inhalation - rats ->1270 mg/m³- dust/smoke

Note: (RTECS)

Symptoms: Irritation symptoms in the respiratory tract Cough, shortness of breath, after incubation period: Inhalation may cause respiratory edema

LD50 transdermal rabbit male and female ->7940 mg/kg

Remarks: (ECHA)

Skin corrosion/irritation

Skin - Rabbit Result: No skin irritation -24 hours Remarks: (ECHA)

Serious eye damage/eye irritation

Eyes - Rabbit Result: No eye irritation -24 hours Remarks: (ECHA)

Respiratory or skin sensitisation

Maximum Response Test - Guinea Pig Result: Positive (OECD Testing Guideline 406) Note: (Appendix VI to Regulation (EC) No 1272/2008)

Germ cell mutagenicity

Test type: Ames test Testing System: Salmonella Typhimurium Metabolic activation: with or without metabolic activation effect Result: Negative Remarks: (ECHA) Test type: Mutation (mammalian cell test): Micronucleus positive Testing System: Chinese Hamster Lung Cells Metabolic activation: with or without metabolic activation effect Result: Negative Remarks: (ECHA) Test type: Micronucleus test Species: Mouse Cell type: Red blood cells (erythrocytes) Route of infection: Intraperitoneal Result: Negative Remarks: (ECHA)

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

Registration of Toxic Effects of Chemical Substances: DL6475000

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To our knowledge, the chemical, physical, and toxic properties of this substance have not been fully studied.

After absorption:

headache

nauseated

vomiting

Other hazards cannot be ruled out.

Operate in accordance with good industrial hygiene and safety regulations.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish: Flow cytometry test LC50- *Oncorhynchus mykiss* (rainbow trout) -0.73 mg/l -96 h
(OECD Testing Guidelines 203)

Toxicity to *Daphnia magna* and other aquatic invertebrates EC50- *Daphnia magna* -0.71 mg/l -48 h
(OECD Testing Guidelines 202)

Toxicity to Algae ErC50- *Pseudokirchneriella Subcapitata* -0.5 mg/l -72 hours
(OECD Testing Guidelines 201)

Static toxicity test on bacteria EC50- Activated sludge -3301 mg/l -3 h
(OECD Testing Guideline 209)

Toxicity to Fish (Chronic Toxicity) Flow Test NOEC - *Oncorhynchus mykiss* (Rainbow Trout) -0.041 mg/l -89 d
(OECD Testing Guidelines 210)

Toxicity to *Daphnia magna* and other aquatic invertebrates (chronic toxicity) EC50- *Daphnia magna* -0.33 mg/l -21 days (OECD Test Guideline 211)

NOEC - *Daphnia magna* -0.08 mg/l -21 days
(OECD Testing Guideline 211)

12.2 Persistence and degradability

Aerobic - exposure time 14 days (OECD Testing Guideline 301C)

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

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

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information**DOT (US)**

UN number: UN3077

Packing group: III

Class: 9

Proper shipping name:

Reportable Quantity(RQ): no data

Poison Inhalation Hazard: no data

ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, SOLID, N.O.S.

available

available

Environmental Hazards: yes

IMDG

UN number: UN3077

Packing group: III

EMS-No: no data available

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

IATA

UN number: UN3077

Packing group: III

Class: 9

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

SECTION 15: Regulatory information

Please note that waste disposal should also meet local regulations. If applicable, the chemical meets the requirements of the Regulations on the Safety Management of Hazardous Chemicals (adopted by the State Council on December 4, 2013).

SECTION 16: Other information**Prepared By**

Regulatory Affairs

ALADDIN SCIENTIFIC CORPORATION

Email: QualityAssurance@aladdinsci.com

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Revision Summary

SDS sections updated v1

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