

SAFETY DATA SHEET

Version: v1

Revision Date: 2025-09-17

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

1.1 Product identifiers

Product name	: (S)-(+)-2-Butanol
Product Number	: S138824
Brand	: aladdin
CAS-No.	: 4221-99-2

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

Identified uses	: Laboratory chemicals, Manufacture of substances.
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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)

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

H226	Flammable liquid and vapor
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness

Precautionary statement(s)

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P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting/.../] equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P370+P378	In case of fire: Use ... to extinguish.
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to an approved waste disposal plant.
P264+P265	Wash hands [and ...] thoroughly after handling. Do not touch eyes.
P337+P317	If eye irritation persists: Get medical help.
P319	Get medical help if you feel unwell.

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

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: (S)-(+)-sec-Butyl Alcohol
Formula	: C ₄ H ₁₀ O
Molecular weight	: 74.12
CAS No.	: 4221-99-2
EC-NO.	: 224-168-1

Component	Classification	Concentration
(S)-(+)-2-Butanol	no data available	≥98%(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

If inhaled, please move the patient to fresh air. If breathing stops, give artificial respiration.

In case of skin contact

Rinse with soap and plenty of water. Consult a doctor.

In case of eye contact

Thoroughly rinse with plenty of water for at least 15 minutes and consult a doctor.

If swallowed

Do not induce vomiting. Do not feed anything to unconscious individuals. Rinse your mouth with water. Consult a doctor.

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

Water, Foam, Carbon dioxide (CO₂), Dry powder

Unsuitable extinguishing media

no data available

5.2 Special hazards arising from the substance or mixture

no data available

5.3 Advice for firefighters

no data available

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 inhaling vapors, smoke, or gases. Ensure sufficient ventilation. Remove all sources of ignition. Evacuate personnel to a safe area. Beware of vapor accumulation reaching explosive concentrations. Vapour can accumulate in low-lying areas.

6.2 Environmental precautions

If safety can be ensured, measures can be taken to prevent further leakage or overflow. Do not allow the product to enter the sewer.

6.3 Methods and materials for containment and cleaning up

Contain spillage and collect spillage with a vacuum cleaner or damp brush, place in container, and dispose of in accordance with local regulations (see Section 13).

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid the formation of dust and aerosols. Provide suitable exhaust equipment in areas with dust generation.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool place. Keep the container tightly closed and store in a dry and ventilated place. The opened container must be carefully resealed and kept in an upright position to prevent leakage.

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

no data available

Personal protective equipment

Eye/face protection

no data available

Skin protection

no data available

Body Protection

no data available

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

no data available

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	no data available
f) Initial boiling point and boiling range	no data available
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	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

no data available

10.5 Incompatible materials

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Acids, acyl chlorides, anhydride, oxidants, halogens, peroxides

10.6 Hazardous decomposition products

no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

There are no components in this product at levels greater than or equal to 0.1% that have been identified by IARC as possible or definite human carcinogens.

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

May cause respiratory irritation. May cause drowsiness or dizziness.

Additional Information

no data available

SECTION 12: Ecological information

12.1 Toxicity

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

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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

Recycle 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

Proper shipping name: BUTANOLS

Packing group: no data available

Reportable Quantity(RQ): no data available

Class: 3

Poison Inhalation Hazard: no data available

Environmental Hazards: No

IMDG

UN number: no data available

Proper shipping name: BUTANOLS

Packing group: no data available

EMS-No: no data available

IATA

UN number: no data available

Proper shipping name: BUTANOLS

Packing group: no data available

Class: 3

SECTION 15: Regulatory information

no data available

SECTION 16: Other information

Prepared By

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