

SAFETY DATA SHEET

Version: v1
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Bromine standard solution
Product Number : B742253
Brand : aladdin
CAS-No. : no data available

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)

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute Inhalation Toxicity - Vapors Category 1

Skin Corrosion/Irritation Category 1A

Serious Eye Damage/Eye Irritation Category 1

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word

Danger

Hazard statement(s)

H314

Causes severe skin burns and eye damage

H330

Fatal if inhaled

Precautionary statement(s)

P260

Do not breathe dust/fume/gas/mist/vapors/spray.

P264

Wash hands [and ...] thoroughly after handling.

P271

Use only outdoors or in a well-ventilated area.

P280

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

P284

[In case of inadequate ventilation] Wear respiratory protection.

P310

Immediately call a POISON CENTER or doctor/physician.

P363

Wash contaminated clothing before reuse.

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.

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

Very toxic to aquatic life

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: no data available
Formula	: no data available
Molecular weight	: no data available
CAS No.	: no data available
EC-NO.	: no data available

Component	Classification	Concentration
Bromine standard solution		
	no data available	c(1/2Br ₂)=0.1000mol/L

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 from exposure, lie down. Remove to fresh air. If not breathing, give artificial respiration. Immediate medical attention is required.

In case of skin contact

Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Call a physician immediately.

In case of eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

If swallowed

Do NOT induce vomiting. Call a physician or poison control center immediately.

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

no data available

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. Avoid dust formation.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Do not let this chemical enter the environment. Avoid dust formation.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation.

7.2 Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Light sensitive. Store at room temperature and away from light.

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.

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

The exothermic reaction occurs at: hydride Amides phenols ether Halogen halogen compounds Halogen oxide nonmetal alcohols organic matter Alkaline oxide alkali metal semimetal acetylene amine ketones aldehyde nitride germanium rubber phosphide metal sodium hydroxide Iron/Iron containing compounds mercury Titanium boron There is an explosion hazard associated with its effect: ammonia Diazonium compound silane Diethyl zinc hydrogen organic matter ozone nitrile Halogen oxide phosphine potassium sodium carbide Carbonyl nickel phosphine phosphorus reducing agent Oxidizable substance hydrogen and pressure hot metal and Moisture lithium Sensitive to vibration antimony powdered There may be a risk of fire or the production of flammable gases or vapors when interacting with it: Isoacetylene aluminium halogen hydride hydrocarbon compounds fluorine fluoride Lithium silicide Phosphorus oxides tin arsenic powdered

10.4 Conditions to avoid

Incompatible products. Excess heat.

10.5 Incompatible materials

Organic materials, Strong oxidizing agents, Ammonia, Fluorine, Metals, Reducing Agent

10.6 Hazardous decomposition products

Hydrogen halides, Thermal decomposition can lead to release of irritating gases and vapors

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

no data available

Skin corrosion/irritation

Note: Causing severe burns. According to EU CLP Regulation 1272/2008, Annex 6 (Tables 3.1/3.2) for classification

Serious eye damage/eye irritation

Note: Causing serious eye damage.

Respiratory or skin sensitisation

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

Additional Information

Heartfelt: cough, wheezing, pharyngitis, shortness of breath, headache, nausea, vomiting, cyanosis, cardiovascular effects.

Respiratory disorders, tears, nosebleeds, dizziness,

Impatience, decreased appetite, joint pain, abdominal pain, diarrhea, hoarseness

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

Liver - Irregular - Based on Human Evidence

SECTION 12: Ecological information

12.1 Toxicity

Static toxicity test on fish LC50- *Lepomis macrochirus* -0.54 mg/l -96 h Remarks: (ECOTOX database)

Toxicity (chronic toxicity) to water fleas and other aquatic invertebrates Static test NOEC - *Daphnia magna* -0.46 mg/l -48 h

Remarks: (ECOTOX database)

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

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: UN1744

Proper shipping name: BROMINE

Packing group: I

Reportable Quantity(RQ):no data available

Class: 8(6.1)

Poison Inhalation Hazard:no data available

Environmental Hazards: Yes

IMDG

UN number: UN1744

Proper shipping name: BROMINE

Packing group: I

EMS-No:no data available

IATA

UN number: UN1744

Proper shipping name: BROMINE

Packing group: I

Class: 8(6.1)

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

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on December 4, 2013).

SECTION 16: Other information

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