SAFETY DATA SHEET

Version: v1 Revision Date: 2024-01-29 Print Date: 2024-02-05

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

1.1 Product identifiers

| Product name | : Bromine - 1,4-Dioxane Complex |
|----------------|---------------------------------|
| Product Number | : B355152 |
| Brand | : aladdin |
| CAS-No. | : 15481-39-7 |

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

: Laboratory chemicals, Manufacture of substances.

Identified uses

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) CFR 1910.1200:Flammable Solids [Category 2]

2.2 GHS Label elements, including precautionary statements

| Pictogram | |
|----------------------------|--|
| Signal word | Warning |
| Hazard statement(s) | |
| H228 | Flammable solid |
| Precautionary statement(s) | |
| P210 | Keep away from heat, hot surface, sparks, open flames and other ignition |
| | sources No smoking. |
| P240 | Ground/bond container and receiving equipment. |
| P241 | Use explosion-proof [electrical/ventilating/lighting//] equipment. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |

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P370+P378 In case of fire: Use ... to extinguish.

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

SECTION 3: Composition/information on ingredients

3.1 Substances

| Synonyms | : no data available |
|------------------|---------------------|
| Formula | : C4H8Br2O2 |
| Molecular weight | : 247.91 |
| CAS No. | : 15481-39-7 |
| EC-NO. | : no data available |
| | |

Classification

Component

Bromine - 1,4-Dioxane

Complex

no data available

95%

Concentration

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice
- no data available
- If inhaled

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

In case of skin contact

Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention.

In case of eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

If swallowed

Get medical advice/attention if you feel unwell. Rinse mouth.

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

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5.1 Extinguishing media

Suitable extinguishing media Dry chemical, foam, water spray, carbon dioxide. Unsuitable extinguishing media no data available

5.2 Special hazards arising from the substance or mixture

These products include: Carbon oxides Halogenated compounds.Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.Closed containers may explode from heat of a fire.

5.3 Advice for firefighters

Wear self-contained breathing apparatus if possible.

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

Use personal protective equipment. Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

6.2 Environmental precautions

Prevent product from entering drains.

6.3 Methods and materials for containment and cleaning up

Clean up the dust and collect it in a closed container, taking care not to disperse it. Adhered or aggregated materials shall be disposed of in a timely manner in accordance with local laws and regulations. Prevention of secondary hazards: remove all sources of ignition. In case of fire, fire extinguishing devices shall be prepared. Use spark proof tools and explosion-proof equipment.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent dispersion of dust. Keep away from heat/sparks/open flame/hot surfaces. -No smoking. Take measures to prevent the build up of electrostatic charge. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing. Conditions for safe storage, including any incompatibilities

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Store in an explosion-poof freezer.Store away from incompatible materials such as Phone: 400-620-6333 Email: Sale@aladdin-e.com Web: https://www.aladdin-e.com

oxidizing agents.Heat-sensitive

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

Follow safe industrial engineering/laboratory practices when handling any chemical. Install a closed system or local exhaust. Also install safety shower and eye bath.

Personal protective equipment

Eye/face protection

Safety glasses. A face-shield, if the situation requires.

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 Protective clothing. Protective boots, if the situation requires. Respiratory protection

Dust respirator. Follow local and national regulations.

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| a) Appearance | form: Crystal - Powder Solid color: Yellow - Yellow red |
|---|---|
| b) Odour | no data available |
| c) Odour Threshold | no data available |
| d) pH | no data available |
| e) Melting point/freezing point | 68°C (154°F) |
| f) Initial boiling point and boiling range | 95°C (203°F) |
| 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 |

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| l) Vapour density | no data available |
|--|----------------------|
| m) Relative density | no data available |
| n) Water solubility | Soluble:Methanol |
| o) Partition coefficient: n-octanol/wate | er 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

Spark, Open flame, Static discharge

10.5 Incompatible materials

Oxidizing agents

10.6 Hazardous decomposition products

Carbon dioxide, Carbon monoxide, Hydrogen bromide

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

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> 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 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

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

Disposal of product: Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide

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assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains, water ways, or the soil.Other considerations: Observe all federal, state and local regulations when disposing of the substance. Contaminated packaging

Disposal of container: Dispose of as unused product. Do not re-use empty containers.

SECTION 14: Transport information

| DOT (US) | | |
|--|---|---|
| UN number: UN1325 | Packing group: III | Class: 4.1 |
| Proper shipping name: Flammable solids, organic, n.o.s | Reportable Quantity(RQ): no data available | Poison Inhalation Hazard: no data available |
| Environmental Hazards: no data available | | |
| IMDG | | |
| UN number: UN1325 | Packing group: III | EMS-No: EmS number: F-A, S-G |
| Proper shipping name: Flammable solids, organic, n.o.s | | |
| ΙΑΤΑ | | |
| UN number: UN1325 | Packing group: III | Class: 4.1 |
| Proper shipping name: Flammable so | lids, organic, n.o.s | |

SECTION 15: Regulatory information

Toxic Substance Control Act

This product is NOT on the EPA Toxic Substances Control Act (TSCA) inventory. The following notices are required by 40 CFR 720.36 (C) for those products not on the inventory list: (i) These products are supplied solely for use in research and development by or under the supervision of a technically qualified individual as defined in 40 CFR 720.0 et sec. (ii) The health risks of these products have not been fully determined. Any information that is or becomes available will be supplied on a SDS sheet. US Federal Regulations

US Federal Regulations

SARA 313: Not Listed

SARA 302: Not Listed

State Regulations

Massachusetts Not Listed

New Jersey Not Listed

Pennsylvania Not Listed

Other Information

NFPA Rating: HMIS Classification: Health: 1 Health: 1 Flammability: 2 Flammability: 2 Instability: 2 Physical: 2

SECTION 16: Other information

Further information

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