SAFETY DATA SHEET

Version: v1 Revision Date: 2023-10-08 Print Date: 2023-12-05

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

1.1 Product identifiers

| : | Isobutyric acid |
|---|-----------------|
| : | 1434199 |
| : | aladdin |
| : | 79-31-2 |
| | : |

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

| Ident | tified uses | : | Laboratory | / chem | nicals. | Manufa | acture of | f 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 | : 800-424-9300 |
|----------------------------|--------------------|
| CHEMTREC®, Outside the USA | : 001-703-527-3887 |

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) Flammable liquids (Category 3), H226

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Dermal (Category 3), H311

Skin corrosion (Sub-category 1B), H314

Serious eye damage (Category 1), H318

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word



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| Hazard statement(s) | |
|----------------------------|--|
| H226 | Flammable liquid and vapor |
| H302 | Harmful if swallowed |
| H311 | Toxic in contact with skin |
| H314 | Causes severe skin burns and eye damage |
| H402 | Harmful to aquatic life |
| Precautionary statement(s) | |
| 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. |
| P264 | Wash hands [and] thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P330 | Rinse mouth. |
| P301+P312 | IF SWALLOWED: call a POISON CENTER/doctor/ IF you feel unwell. |
| P302+P352 | IF ON SKIN: wash with plenty of water. |
| 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

SECTION 3: Composition/information on ingredients

3.1 Substances

| Synonyms | : Isobutyric acid, 2-Methylpropionic acid |
|------------------|---|
| Formula | : C4H8O2 |
| Molecular weight | : 88.11 |
| CAS No. | : 79-31-2 |
| EC-NO. | : 201-195-7 |
| | |

| Component | Classification | Concentration | |
|-----------------|--|---------------|--|
| Isobutyric acid | | | |
| | Flam. Lig. 3; Acute Tox. 4; Acute Tox. 3; Skin Corr. 1B; Eye Dam. 1; H226, | for synthesis | |

Flam. Liq. 3; Acute Tox. 4; Acute Tox. 3; Skin Corr. 1B; Eye Dam. 1; H226, for synthesis H302, H311, H314, H318

SECTION 4: First aid measures

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4.1 Description of first aid measures

General advice

First aider needs to protect himself. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician

In case of skin contact

In case of skin contact In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses. If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

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 Carbon dioxide (CO2) Foam Dry powder Unsuitable extinguishing media no data available

5.2 Special hazards arising from the substance or mixture

Carbon oxides Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air at elevated temperatures. Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

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

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

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6.2 Environmental precautions

If safety is ensured, measures can be taken to prevent further leakage or spillage. Don't let the product go down the drain.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge. Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons.

7.2 Conditions for safe storage, including any incompatibilities

Keep the container closed and store it in a dry, ventilated and cool place.

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 it is safe, prevent further leakage or spillage and do not allow the product to enter the sewer system.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| a) Appearance b) Odour c) Odour Threshold | form: Liquid color: Colorless no data available no data available |
|---|---|
| d) pH | no data available |
| e) Melting point/freezing point | -47°C |
| f) Initial boiling point and boiling range | 154.5°C |
| g) Flash point | 59°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 | 0.95 |
| 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

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10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions no data available

10.4 Conditions to avoid

Heat, flames and sparks. Heating.

- 10.5 Incompatible materials Strong oxidizing agents
- 10.6 Hazardous decomposition products

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

| 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 |
| 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 |
| RTECS: NO4375000 |

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. After absorption: Nausea, Vomiting, Headache, Drowsiness, Unconsciousness

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SECTION 12: Ecological information

12.1 Toxicity

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

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: 2529 | Packing group: III | Class: 3 (8) |
| Proper shipping name: ISOBUTYRIC ACID | Reportable Quantity(RQ): no data available | Poison Inhalation Hazard: no data available |
| Environmental Hazards: No | | |
| IMDG | | |
| UN number: 2529 | Packing group: III | EMS-No: no data available |
| Proper shipping name: ISOBUTYRIC A | CID | |
| ΙΑΤΑ | | |



UN number: 2529

Packing group: III

Class: 3 (8)

Proper shipping name: ISOBUTYRIC 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 Email: QualityAssurance@aladdinsci.com |
|------------------|--|
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| Revision Summary | SDS sections updated v1 |

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