

# SAFETY DATA SHEET

Version: v1

Revision Date: 2025-09-20

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

### 1.1 Product identifiers

|                |                          |
|----------------|--------------------------|
| Product name   | : $\beta$ -Butyrolactone |
| Product Number | : B152852                |
| Brand          | : aladdin                |
| CAS-No.        | : 3068-88-0              |

### 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,<br>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)

CFR 1910.1200: Skin Corrosion/Irritation [Category 2] Germ Cell Mutagenicity [Category 2] Carcinogenicity [Category 2] Flammable Liquids [Category 3]

### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

|      |                               |
|------|-------------------------------|
| H226 | Flammable liquid and vapor    |
| H315 | Causes skin irritation        |
| H319 | Causes serious eye irritation |

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|                                   |                                                                                                                                  |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| H351                              | Suspected of causing cancer                                                                                                      |
| <b>Precautionary statement(s)</b> |                                                                                                                                  |
| 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.                                                                                  |
| P280                              | Wear protective gloves/protective clothing/eye protection/face protection.                                                       |
| P321                              | Specific treatment (see ... on this label).                                                                                      |
| P302+P352                         | IF ON SKIN: wash with plenty of water.                                                                                           |
| P303+P361+P353                    | IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].                         |
| P305+P351+P338                    | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. |
| P362+P364                         | Take off contaminated clothing and wash it before reuse.                                                                         |
| P370+P378                         | In case of fire: Use ... to extinguish.                                                                                          |
| P405                              | Store locked up.                                                                                                                 |
| P403+P235                         | Store in a well-ventilated place. Keep cool.                                                                                     |
| P501                              | Dispose of contents/container to an approved waste disposal plant.                                                               |
| P203                              | Obtain, read and follow all safety instructions before use.                                                                      |
| P264+P265                         | Wash hands [and ...] thoroughly after handling. Do not touch eyes.                                                               |
| P318                              | if exposed or concerned, get medical advice.                                                                                     |
| P337+P317                         | If eye irritation persists: Get medical help.                                                                                    |
| P332+P317                         | If skin irritation occurs: Get medical help.                                                                                     |

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

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                  |                                                                  |
|------------------|------------------------------------------------------------------|
| Synonyms         | : beta-Butyrolactone;4-Methyl-2-oxetanone; β-Methylpropiolactone |
| Formula          | : C4H6O2                                                         |
| Molecular weight | : 86.09                                                          |
| CAS No.          | : 3068-88-0                                                      |
| EC-NO.           | : no data available                                              |

| Component       | Classification    | Concentration |
|-----------------|-------------------|---------------|
| β-Butyrolactone | no data available | ≥95%(GC)      |

## 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.

#### In case of skin contact

Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. 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. Get medical advice/attention.

#### If swallowed

Get medical advice/attention. Rinse mouth.

### 4.2 Most important symptoms and effects, both acute and delayed

May cause heritable genetic damage in humans. Possibly carcinogenic to humans.

### 4.3 Indication of any immediate medical attention and special treatment needed

no data available

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Dry chemical, foam, water spray, carbon dioxide.

#### Unsuitable extinguishing media

Solid streams of water

### 5.2 Special hazards arising from the substance or mixture

no data available

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus if possible.

### 5.4 Further information

Use water spray to cool unopened containers.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Use extra personal protective equipment (self-contained breathing apparatus). Keep people away from and upwind of

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spill/leak. Ensure adequate ventilation. 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

Absorb spilled material with dry sand or inert absorbent before recycling it into an airtight container. If there is a large amount of spillage, use seals to control the spillage. 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.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapour or mist. Keep away from heat/sparks/open flame/hot surfaces. -No smoking. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a ventilation, local exhaust if vapour or aerosol will be generated. Avoid all contact! Conditions for safe storage, including any incompatibilities

### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Store in a cool, dark and well-ventilated place. Store locked up. Store away from incompatible materials such as oxidizing agents.

### 7.3 Specific end use(s)

no data available

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## 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 goggles. 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**

Impervious gloves. Impervious protective clothing. Protective boots, if the situation requires.

**Respiratory protection**

Half or full facepiece respirator, self-contained breathing apparatus (SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and 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: Clear Liquid color: Colorless - Very pale yellow     |
| b) Odour                                        | no data available                                          |
| c) Odour Threshold                              | Mint-like                                                  |
| d) pH                                           | no data available                                          |
| e) Melting point/freezing point                 | -44°C (-47°F)                                              |
| f) Initial boiling point and boiling range      | 87°C /6.7kPa (189°F)                                       |
| g) Flash point                                  | 60°C (140°F)                                               |
| 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                             | 1.05                                                       |
| n) Water solubility                             | Water:Soluble (268g/L, 25°C);Soluble:Many organic solvents |
| 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

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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, Strong bases

**10.6 Hazardous decomposition products**

Carbon dioxide, Carbon monoxide

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**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

orl-rat LD50:17200 uL/kg skn-rbt LD50:&gt;20 mL/kg

**Skin corrosion/irritation**

skn-rbt 500 mg open MOD

**Serious eye damage/eye irritation**

no data available

**Respiratory or skin sensitisation**

no data available

**Germ cell mutagenicity**

dnd-mam-lym 10 mmol/L dnd-mus-ipr 1 g/kg mnt-mus-ipr 3 g/kg/48H-I

**Carcinogenicity**

orl-rat TDLo:31 g/kg/61W-I scu-mus TDLo:12 g/kg/30W-I scu-rat TDLo:38 g/kg/76W-I

**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 Number:RQ8050000;IARC:Group 2B (Possibly carcinogenic to humans)

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## 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

Log Pow: -0.38

### 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 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: UN1993

Packing group: III

Class: 3

Proper shipping name: Flammable liquids, n.o.s

Reportable Quantity(RQ): no data available

Poison Inhalation Hazard: no data available

Environmental Hazards: no data available

#### IMDG

UN number: UN1993

Packing group: III

EMS-No: EmS number: F-E, S-E

Proper shipping name: Flammable liquids, n.o.s

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**IATA**

UN number: UN1993

Packing group: III

Class: 3

Proper shipping name: Flammable liquids, n.o.s

**SECTION 15: Regulatory information****Toxic Substance Control Act**

This product is ON the EPA Toxic Substances Control Act (TSCA) inventory. US Federal Regulations

**US Federal Regulations**

SARA 313: Not Listed

SARA 302: Not Listed

**State Regulations**

Massachusetts Listed

New Jersey Listed

Pennsylvania Listed

**Other Information**

NFPA Rating: HMIS Classification: Health: 2 Health: 2 Flammability: 2 Flammability: 2 Instability: 0 Physical: 0

**International Inventories**

Canada: NDSL On NDSL

EC-No: 221-330-3

**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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