

# 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   | : (S)-(+)-5-Oxotetrahydrofuran-2-carboxylic Acid |
| Product Number | : S161230                                        |
| Brand          | : aladdin                                        |
| CAS-No.        | : 21461-84-7                                     |

### 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)

CFR 1910.1200: Skin Corrosion/Irritation [Category 2] Eye Damage/Irritation [Category 2A]

### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

|      |                                  |
|------|----------------------------------|
| H315 | Causes skin irritation           |
| H319 | Causes serious eye irritation    |
| H335 | May cause respiratory irritation |

Precautionary statement(s)

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|                |                                                                                                                                  |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| P261           | Avoid breathing 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.                                                       |
| P321           | Specific treatment (see ... on this label).                                                                                      |
| P302+P352      | IF ON SKIN: wash with plenty of water.                                                                                           |
| 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. |
| P362+P364      | Take off contaminated clothing and wash it before reuse.                                                                         |
| P405           | Store locked up.                                                                                                                 |
| P403+P233      | Store in a well-ventilated place. Keep container tightly closed.                                                                 |
| 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.                                                                                    |
| P332+P317      | If skin irritation occurs: 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)-(+)-γ-Carboxy-γ-butyrolactone;(S)-(+)-5-Oxo-2-tetrahydrofuroic Acid |
| Formula          | : C5H6O4                                                                  |
| Molecular weight | : 130.1                                                                   |
| CAS No.          | : 21461-84-7                                                              |
| EC-NO.           | : no data available                                                       |

| Component                                      | Classification    | Concentration |
|------------------------------------------------|-------------------|---------------|
| (S)-(+)-5-Oxotetrahydrofuran-2-carboxylic Acid | no data available | ≥97%          |

## 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. Gently wash with plenty of soap and water. 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

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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**

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 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 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

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shall be disposed of in a timely manner in accordance with local laws and regulations.

## 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 dispersion of dust. 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 a cool and dark place. Store under inert gas. Protect from moisture. Store away from incompatible materials such as oxidizing agents. Hygroscopic

### 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 as possible so that workers should not be exposed directly. 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 gloves. 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: White - Slightly pale yellow |
| b) Odour                                        | no data available                                                |
| c) Odour Threshold                              | no data available                                                |
| d) pH                                           | no data available                                                |
| e) Melting point/freezing point                 | 72°C (162°F)                                                     |
| 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

Oxidizing agents

## 10.6 Hazardous decomposition products

Carbon dioxide, Carbon monoxide

## 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

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

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### 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: no data available             | Packing group: no data available           | Class: no data available                    |
| Proper shipping name: no data available  | Reportable Quantity(RQ): no data available | Poison Inhalation Hazard: no data available |
| Environmental Hazards: no data available |                                            |                                             |

#### IMDG

|                                         |                                  |                           |
|-----------------------------------------|----------------------------------|---------------------------|
| UN number: no data available            | Packing group: no data available | EMS-No: no data available |
| Proper shipping name: no data available |                                  |                           |

#### IATA

|                                         |                                  |                          |
|-----------------------------------------|----------------------------------|--------------------------|
| UN number: no data available            | Packing group: no data available | Class: no data available |
| Proper shipping name: no data available |                                  |                          |

## 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

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**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: 2 Health: 2 Flammability: 0 Flammability: 0 Instability: 0 Physical: 0

**SECTION 16: Other information**

|                         |                                                                                                                                                     |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Prepared By</b>      | Regulatory Affairs<br>ALADDIN SCIENTIFIC CORPORATION<br>Email: <a href="mailto:QualityAssurance@aladdinsci.com">QualityAssurance@aladdinsci.com</a> |
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