

Version: v1  
Revision Date: 2023-07-18  
Print Date: 2023-07-25

## SAFETY DATA SHEET

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

#### 1.1 Product identifiers

Product name : Gallium metal  
Product Number : G105131  
Brand : aladdin  
CAS-No. : 7440-55-3

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

Identified uses : Laboratory chemicals, Manufacture of substances.

#### 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)

Metal Corrosion (Category 1), H290

Acute toxicity, oral (category 4), H302

Skin corrosion/irritation (category 1), H314

Serious eye damage/eye irritation (category 1), H318

Acute (short-term) aquatic hazard (category 3), H402

Long-term aquatic hazard (category 3), H412

#### 2.2 GHS Label elements, including precautionary statements



#### Pictogram

- Phone: 400-620-6333
- Email: Sale@aladdin-e.com
- Web: <https://www.aladdin-e.com>

|                                   |  |
|-----------------------------------|--|
| <b>Signal word</b>                | Danger   |
| <b>Hazard statement(s)</b>        |  |
| H290                              | May be corrosive to metals   |
| <b>Precautionary statement(s)</b> |  |
| P234                              | Keep only in original container.   |
| P260                              | Do not breathe dust/fume/gas/mist/vapors/spray.  |
| P264                              | Wash hands [and ...] thoroughly after handling.  |
| P270                              | Do not eat, drink or smoke when using this product.  |
| P273                              | Avoid release to the environment.  |
| P280                              | Wear protective gloves/protective clothing/eye protection/face protection.   |
| P302                              | IF ON SKIN:  |
| P330                              | Rinse mouth.   |
| P361                              | Take off immediately all contaminated clothing.  |
| P363                              | Wash contaminated clothing before reuse.   |
| P390                              | Absorb spillage to prevent material damage.  |
| P301+P312                         | IF SWALLOWED: call a POISON CENTER/doctor/... IF you feel unwell.  |
| P301+P330+P331                    | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.   |
| 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. |
| P405                              | Store locked up.   |
| P406                              | Store in corrosive resistant/... container with a resistant inner liner.   |
| 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         | : Gallium ingot |
| Formula          | : Ga            |
| Molecular weight | : 69.72         |
| CAS No.          | : 7440-55-3     |
| EC-NO.           | : 231-163-8     |

| <b>Component</b>     | <b>Classification</b>   | <b>Concentration</b>  |
|----------------------|---|-----------------------|
| <b>Gallium metal</b> | Metal Corrosion Category 1; Acute Toxicity Category 4; Skin corrosion/irritation Category 1; Serious eye damage/eye irritation category 1; Acute (short-term) aquatic hazards Category 3; Long-term aquatic hazard category 3; H290, H302, H314, H318, H402, H412 | 99.9999% metals basis |

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

**General advice**

- Phone: 400-620-6333
- Email: Sale@aladdin-e.com
- Web: <https://www.aladdin-e.com>

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**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**

Use water mist, alcohol-resistant foam, dry powder or carbon dioxide to extinguish the fire.

**Unsuitable extinguishing media**

no data available

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

Gallium Oxide Nonflammable. Surrounding fire sources may cause the release of hazardous vapors

**5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**5.4 Further information**

no data available

---

**SECTION 6: Accidental release measures**

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

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

**6.2 Environmental precautions**

Do not let product enter drains.

---

- Phone: 400-620-6333
- Email: Sale@aladdin-e.com
- Web: <https://www.aladdin-e.com>

### 6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal see section 13.

---

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

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

Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature 2 - 8 °C Storage class (TRGS 510): Non-combustible, corrosive hazardous materials

### 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

##### Eyeface protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves 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.

##### Body Protection

Complete suit protecting against chemicals, 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 full-face 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

---

- Phone: 400-620-6333
- Email: Sale@aladdin-e.com
- Web: <https://www.aladdin-e.com>

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**

no data available

---

**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                 | 29.8 °C           |
| f) Initial boiling point and boiling range      | 2,403 °C          |
| 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**

Exothermic reaction: Chlorine, Bromine, Halogen. Hazardous gases or contact with the items on the right will produce harmful fumes: Alkali. Risk of explosion when reacting with them: Hydrogen peroxide and hydrogen chloride gas

**10.4 Conditions to avoid**

no data available

---

- Phone: 400-620-6333
- Email: Sale@aladdin-e.com
- Web: <https://www.aladdin-e.com>

**10.5 Incompatible materials**

Metal

**10.6 Hazardous decomposition products**

no data available

---

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

**Acute toxicity**

LD50 Oral-Rat-Male and Female-300-<2,000 mg/kg

(OECD Test Guideline 423)

**Skin corrosion/irritation**

Skin-In vitro test results: No skin irritation-60 minutes (OECD Test Guideline 439)

**Serious eye damage/eye irritation**

Eyes-In vitro study results: No eye irritation-28 minutes (OECD Test Guideline 492)

**Respiratory or skin sensitisation**

Local Lymph Node Test (LLNA)-Mouse Result: Non-skin sensitizer (OECD Test Guideline 429)

**Germ cell mutagenicity**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**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**

Registration of Toxic Effects of Chemical Substances: LW8600000

Cough, shortness of breath, headache, nausea, vomiting, metallic taste, dermatitis, bone marrow suppression

As far as we know, the chemical, physical and toxic properties have not been fully studied.

The nature of the hazard cannot be ruled out, but it should not happen if handled correctly.

Operate in accordance with good industrial hygiene and safety regulations.

---

- Phone: 400-620-6333
- Email: Sale@aladdin-e.com
- Web: <https://www.aladdin-e.com>

**SECTION 12: Ecological information**

**12.1 Toxicity**

No ridge to water flea and other aquatic species

Toxicity of Vertebral Animals

Static test EC50-Daphnia magna (Water flea)-14.96 mg/l-48 h

(OECD Test Guideline 202)

Toxicity to algae static test ErC50-Desmodesmus subspicatus (green algae)-14.65 mg/l-72 h

(OECD Test Guideline 201)

**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**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**

Dispose of as unused product.

---

**SECTION 14: Transport information**

**DOT (US)**

UN number: 2803

Packing group: III

Class: 8

Proper shipping name: Gallium

Reportable Quantity(RQ): no data available Poison Inhalation Hazard: no data

Environmental Hazards: No

- 
- Phone: 400-620-6333
  - Email: Sale@aladdin-e.com
  - Web: <https://www.aladdin-e.com>

**IMDG**

UN number: 2803

Packing group: III

EMS-No: no data available

Proper shipping name: Gallium

**IATA**

UN number: 2803

Packing group: III

Class: 8

Proper shipping name: Gallium

---

**SECTION 15: Regulatory information**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

---

**SECTION 16: Other information**

**Further information**

Copyright Aladdin Co. Ltd. License granted to make unlimited paper copies for internal use only. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Aladdin Co. Ltd. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

Version: v1

Revision Date: 2023-07-  
18

Print Date: 2023-07-  
25

- 
- Phone: 400-620-6333
  - Email: Sale@aladdin-e.com
  - Web: <https://www.aladdin-e.com>