

Version: v1
Revision Date: 2023-07-24
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SAFETY DATA SHEET

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

1.1 Product identifiers

Product name : Gallium
Product Number : G130123
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

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Signal word	Danger
Hazard statement(s)	
H290	May be corrosive to metals
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H412	Harmful to aquatic life with long lasting effects
Precautionary statement(s)	
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.
P310	Immediately call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].
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.
P301+P312+P330	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.

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

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: Gallium ingot; Gallium
Formula	: Ga
Molecular weight	: 69.72
CAS No.	: 7440-55-3
EC-NO.	: 231-163-8

Component	Classification	Concentration
Gallium	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	99.99% metals basis

SECTION 4: First aid measures

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4.1 Description of first aid measures

General advice

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.

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6.2 Environmental precautions

Do not let product enter drains.

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

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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 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

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10.4 Conditions to avoid

no data available

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.

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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.

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)

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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		

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

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