

SAFETY DATA SHEET

Section 1: Identification

Product name: Gallium
Product use: For laboratory research purposes.
Supplier: Trace Sciences International
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Richmond Hill, ON L4B 3N6
CANADA
Telephone: +1 905-770-1100
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Section 2: Hazard(s) Identification

2.1 GHS Classification

Corrosive to Metals (Category 1), H290
Acute toxicity, Oral (Category 4), H302
Short-term (acute) aquatic hazard (Category 3), H402
Long-term (chronic) aquatic hazard (Category 3), H412

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s):

H290 May be corrosive to metals.
H302 Harmful if swallowed.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s):

P234 Keep only in original packaging.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product
P273 Avoid release to the environment.
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P390 Absorb spillage to prevent material damage.
P501 Dispose of contents/ container to an approved waste disposal plant.

Section 3: Composition/ Information on Ingredients

Formula : Ga
Molecular Weight : 69.72 g/mol

| Material | CAS-No. | EC-No. | Index-No. | Concentration |
|----------|-----------|-----------|-----------|---------------|
| Gallium | 7440-55-3 | 231-163-8 | - | <=100% |

Section 4: First-Aid Measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move person out of dangerous area if safe to do so.

If inhaled

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

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water for at least 15 minutes. Use chemical shower if available. Consult a physician.

In case of eye contact

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

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Section 5: Fire-Fighting Measures

5.1 Conditions of flammability

No data available

5.2 Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.3 Hazardous combustion products

Hazardous decomposition products formed under fire conditions: Gallium Oxides

5.4 Special protective equipment for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.5 Further information

No data available

Section 6: Accidental Release Measures

6.1 Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7: Handling and Storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for safe storage

Handle and store under inert gas.
Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature: 2 - 8 °C

Section 8: Exposure Controls/Personal Protection

8.1 Components with workplace control parameters

No data available

8.2 Personal protective equipment

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).

Hand 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.

Eye protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and 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.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Specific engineering controls

Use mechanical exhaust or laboratory fume hood to avoid exposure.

Section 9: Physical and Chemical Properties

Appearance

| | |
|--------|------------|
| Form | Solid |
| Colour | Light grey |

Safety Data

| | |
|------------------------------|---------------------|
| pH | No data available |
| Melting point/freezing point | 29.8 °C (85.6 °F) |
| Boiling point | 2,403 °C (4,357 °F) |

| | |
|--|---|
| Flash point | Not applicable |
| Flammability (solid, gas) | No data available |
| Ignition temperature | No data available |
| Auto-ignition temperature | No data available |
| Lower explosion limit | No data available |
| Upper explosion limit | No data available |
| Vapour pressure | No data available |
| Density | 5.904 g/cm ³ at 20 °C (68 °F) |
| Water solubility | 0.00005 g/l at 20 °C (68 °F) - OECD Test Guideline 105 |
| Partition coefficient: n-octanol/water | No data available |
| Relative vapour density | No data available |
| Odour | No data available |
| Odour Threshold | No data available |
| Evaporation rate | No data available |

Section 10: Stability and Reactivity

10.1 Chemical stability

Stable under recommended storage conditions

10.2 Possibility of hazardous reactions

Exothermic reaction with:

Chlorine, bromine, halogens

Generates dangerous gases or fumes in contact with:

Bases

Risk of explosion with:

Hydrogen peroxide, hydrogen chloride gas

10.3 Conditions to avoid

No data available

10.4 Materials to avoid

Strong acids, strong oxidizing agents, halogens, strong bases

10.5 Hazardous decomposition products

See section 5

Section 11: Toxicological Information

Acute toxicity

Oral

LD50 Oral - Rat - male and female - 300 - < 2,000 mg/kg
(OECD Test Guideline 423)

Inhalation

No data available

Dermal

No data available

Other information on acute toxicity

No data available

Skin corrosion/irritation

Skin - In vitro study
Result: No skin irritation - 60 min
(OECD Test Guideline 439)

Serious eye damage/eye irritation

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

Respiratory or skin sensitization

Local lymph node assay (LLNA) – Mouse
Result: Not a skin sensitizer.
(OECD Test Guideline 429)

Germ cell mutagenicity

Test system: *S. typhimurium*
Metabolic activation: with and without metabolic activation
Result: negative
Remarks: (ECHA)

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

No data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

No data available

Aspiration hazard

No data available

Signs and Symptoms of Exposure

No data available

Additional Information

RTECS: LW8600000

Section 12: Ecological Information

12.1 Toxicity

Toxicity to daphnia and other aquatic invertebrates 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 PBT and vPvB assessment

No data available

12.6 Other adverse effects

No data available

Section 13: 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

IATA

UN number: UN2803 Class: 8 Packing group: III
Proper shipping name: Gallium

Section 15: Regulatory Information

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR

Section 16: Other Information

Further information

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Date Prepared: February 10, 2025