

SAFETY DATA SHEET on Gallium Metal

SDS No. MH10-70-006

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1. Chemical Product

SDS Name : Gallium 99.99%

2. Composition, Information on ingredients

CAS# : 7440-55-3

EINECS# : 231-163-8

Chemical formular : Ga

3. Hazardous Identification

Appearance : Grey

Warning! Causes respiratory tract irritation. May cause digestive tract irritation. Moisture sensitive.
Cause eye and skin irritation.

Target Organs : None known

Potential Health Effects

Eye : Cause eye irritation

Skin : Cause skin irritation. May cause contact dermatitis.

Ingestion : May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation : Cause respiratory tract irritation

Chronic : May cause bone marrow abnormalities with damage to blood forming tissues.

GHS:



Signal Word: Danger

4. First Aid measures

Eye : Immediately flush eyes with plenty of water for at least 15 minutes, Occasionally lifting the upper and lower eyelids. Get medical aid.

Skin : Get medical aid. Flush skin with plenty of soap and water for at least 15minutes while removing contaminated clothing and shoes.

Ingestion : Never give anything by mouth to an unconscious person. Get medical aid. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation : Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. Get medical aid.

5. Fire fighting measures

General information : As in any fire, wear a self-contained breathing apparatus in pressure-demand. MSHA/NIOSH(approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguish media : **Do not get water inside containers. In case of fire use water spray, dry chemical, carbon dioxide, or appropriate foam. Do not direct water at the heated material.**

6. Accidental Release Measures

General Information : **Use proper personal protective equipment as indicated section 8.**
Spills/Leaks : **Avoid run off into storm sewers and ditched which lead to waterways. Clean up spills immediately, observing precautions in the protective equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty condition.**

7. Handling and Storage

Handling : **Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation. Do not allow contact with water. Wash clothing before reuse. Keep from contact with moist air and steam.**
Storage : **Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Refrigerator(Approx 4° C). Store protected from moisture.**

8. Exposure controls, personal protection

Engineering controls : **Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentration low.**
Exposure limits : **ACGIH none listed
NIOSH none listed
OSHA none listed**
OSHA Vacated PELs : **Gallium-No OSHA vacated ate listed for this chemical**
Personal protective equipment : **Eyes-Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133.
Skin-Wear appropriate protective gloves to prevent skin exposure.
Clothing-Wear appropriate clothing to prevent skin exposure.**

9. Physical and Chemical Properties

Physical state : **Solid**
Appearance : **Grey**
Odor : **Not available**
pH : **Not available**
Vapor pressure : **Not available**
Vapor density : **Not available**
Boiling point : **2,400° C**
Melting point : **29° C**
Flash point : **Not available**
Molecular formula : **Ga**
Molecular weight : **69.72**

10. Stability and Reactivity

- Chemical Stability** : **Stable at room temperature in closed containers under normal storage and handling condition.**
- Conditions to avoid** : **Incompatible materials, dust generation, moisture, excess heat.**

Incompatibilities with other materials

- : **Halogens, phosphorus, sulfur, hydrogen peroxides, hydrochloric acid, moisture.**

Hazardous Decomposition products

- : **Irritating and toxic fumes and gases**

11. Toxicological Information

- RTECS#** : **CAS#7440-55-3: LW8600000**
- LD50/LC50** : **Not available**
- Carcinogenicity** : **No information available**
- Epidemiology** : **No information available**
- Teratogenicity** : **No information available**
- Reproductive Effects** : **No information available**
- Other Studies** : **DNA inhibition(human Lymphocyte)=480 umol/L**

12. Ecological Information

Product not tested.

13. Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classify as a hazardous waste. US EPA guidelines for a classification determination are listed in 40CFR part additionally, waste generators must consult state and local hazardous waste regulation. Ensure complete and accurate classification.

14. Transport information

US DOT

- Shipping name** : **Gallium**
- Hazard class** : **8**
- UN number** : **2803**
- Packing group** : **III**
- Marine Pollutant** : **No**

15. Regulatory Information

US Federal

TSCA

CAS#7440-55-3 is listed on the TSCA inventory.

Health&Safety reporting list

None of the chemicals in this product are under a Chemical Test rule.

Section 12b

None of the chemicals are listed under TSCA section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have SNUR under TSCA.

SARA

Section 302(RQ)

None of the chemicals in this material have an RQ.

Section 302 (TPQ)

None of the chemicals in this product have a TPQ.

Section 313

No chemicals are reportable under section 313.

Clean air act

This material does not contain any hazardous air pollutants, Class 1 Ozone depleters, Class 2 ozone depleters.

Clean water act

None of chemicals in this product are listed as Hazardous substances under the CWA, Priority pollutants under CWA and Toxic pollutants under UWA.

OSHA

None of the chemicals in this product are considered highly hazardous by OSHA.

EC Classification, Packaging and Labeling Requirements:**Symbol and Hazard Classification of Product**

Risk Phrases: R34 Causes burns

Safety Phrases:

S20/21 When using do not eat, drink or smoke

S22 Do not breathe dust

S23 Do not breathe fumes

S24/25 Avoid contact with skin and eyes

S28 After contact with skin wash immediately with plenty of soap and water

S36/37/39 Wear suitable protective clothing, gloves and eyes/face protection

S62 If swallowed, do not induce vomiting seek medical advice immediately and show container Label

16. Additional Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost damages, howsoever arising, even if the company has been advised of the possibility of such damages.