

SAFETY DATA SHEET

*** SECTION 1 - IDENTIFICATION ***

Material Name: **Gallium Ingot**

Company Identification: ACI ALLOYS INC
1458 Seareel Place
San Jose, CA 95131

For information, call: 408-259-7337

Emergency Number

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

**** SECTION 2 - HAZARDS IDENTIFICATION ****

Irritating to eyes, respiratory system and skin. Moisture sensitive. The toxicological properties of this material have not been fully investigated.

Potential Health Effects

Eye:

Causes eye irritation.

Skin:

Causes skin irritation. May be harmful if absorbed through the skin.

The toxicological properties of this material have not been fully investigated. May cause contact dermatitis.

Ingestion:

May cause gastrointestinal irritation with nausea, vomiting and diarrhea. The toxicological properties of this substance have not been fully investigated. May be harmful if swallowed.

Inhalation:

Causes respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. May be harmful if inhaled.

Chronic:

May cause bone marrow abnormalities with damage to blood forming tissues. Administration of **gallium** to humans has caused metallic taste, skin rashes, and bone marrow depression.

**** SECTION 3 - COMPOSITION, INFORMATION ON INGREDIENTS ****

CAS#	Chemical Name	%	EINECS#
7440-55-5	Gallium	100	231-163-8

Hazard Symbols: XI

Risk Phrases: 36/37/38

**** SECTION 4 - FIRST AID MEASURES ****

Eyes:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

Skin:

In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion:

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Treat symptomatically and supportively.

****** SECTION 5 - FIRE FIGHTING MEASURES ******

Suitable extinguishing agents

Product is not flammable. Use fire fighting measures that suit the surrounding fire.

Protective equipment: No special measures required.

****** SECTION 6 - ACCIDENTAL RELEASE MEASURES ******

Person-related safety precautions: Not required.

Measures for environmental protection:

Do not allow material to be released to the environment without proper governmental permits.

Measures for cleaning/collecting:

Dispose contaminated material as waste according to item 13.

Additional information:

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

****** SECTION 7 - HANDLING and STORAGE ******

Information for safe handling:

Wash thoroughly after handling.

Never alloy gallium to come in contact with aluminum or aluminum alloy.

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

Prevent formation of dust.

Information about protection against explosions and fires:

No special measures required.

Storage

No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: None.

****** SECTION 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 concentrations low.

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 or European Standard EN166.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

A respiratory protection program that meets OSHA's 29 CFR :1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

****** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ******

Physical State: Solid

Appearance: grey

Odor: Not available.
pH: Not available.
Vapor Pressure: 1 mm Hg @ 1350 deg C
Vapor Density: Not available.
Evaporation Rate: Not available.
Viscosity: Not available.
Boiling Point: 2400 deg C
Freezing/Melting Point: 29 deg C
Autoignition Temperature: Not available.
Flash Point: Not applicable.
Explosion Limits, lower: Not available.
Explosion Limits, upper: Not available.
Decomposition Temperature:
Solubility: Insoluble in water. Dissolves aluminum.
Specific Gravity/Density: 5.9
Molecular Formula: Ga
Molecular Weight: 69.72

**** SECTION 10 - STABILITY AND REACTIVITY ****

Chemical Stability:

Gallium is stable in dry air. It tarnishes in moist air or oxygen.

Conditions to Avoid:

Dust generation, moisture, exposure to air, metals, exposure to moist air or water.

Incompatibilities with Other Materials:

Incompatible with aluminum, hydrogen peroxides, hydrochloric acid, halogens, phosphorus, sulfur, alkalies, oxygen, oxidizing agents.

Hazardous Decomposition Products:

Irritating and toxic fumes and gases.

Hazardous Polymerization: Has not been reported.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#:

CAS# 7440-55-3: LW8600000

LD50/LC50:

Not available.

Carcinogenicity:

Gallium -

Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology:

No information available.

Teratogenicity:

No information available.

Reproductive Effects:

No information available.

Neurotoxicity:

No information available.

Mutagenicity:

See actual entry in RTECS for complete information.

Other Studies:

Please contact Acros for more information.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

General notes:

Do not allow material to be released to the environment without proper governmental permits.

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

Dispose of in a manner consistent with federal, state, and local regulations.

****** SECTION 14 - TRANSPORT INFORMATION ******

US DOT

Shipping Name: GALLIUM

Hazard Class: 8

UN Number: 2803

Packing Group: III

Canadian TDG

No information available.

****** SECTION 15 - REGULATORY INFORMATION ******

US FEDERAL

TSCA

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

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

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

STATE

Gallium can be found on the following state right to know lists: New Jersey, Minnesota.

California No Significant Risk Level:

None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XI

Risk Phrases:

R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 37/39 Wear suitable gloves and eye/face protection.

WGK (Water Danger/Protection)

CAS# 7440-55-3: No information available.

United Kingdom Occupational Exposure Limits

Canada

CAS# 7440-55-3 is listed on Canada's DSL List.

CAS# 7440-55-3 is listed on Canada's Ingredient Disclosure List.

Exposure Limits

****** SECTION 16 - ADDITIONAL INFORMATION ******

SDS Creation Date: 9/02/2015

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

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