

[Item Details](#)

Material Safety Data Sheet

acc. to OSHA and ANSI

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1 Identification of substance:

- **Product details:**
- **Trade name:** Gallium Indium eutectic
- **Stock number:** 12478
- **Manufacturer/Supplier:**
Alfa Aesar, A Johnson Matthey company
Johnson Matthey Catalog Company, Inc.
30 Bond Street
Ward Hill, MA 01835-8099
Emergency Phone: (978) 521-6300
CHEMTREC: (800) 424-9300
Web Site: www.alfa.com
- **Information department:** Health, Safety and Environmental Department
- **Emergency information:**
During normal hours the Health, Safety and Environmental Department. After normal hours call Chemtrec at (800) 424-9300.

2 Composition/Data on components:

- **Chemical characterization:**
Description: (CAS#)

gallium (CAS# 7440-55-3); 75.5%
indium (CAS# 7440-74-6); 24.5%
- **Identification number(s):**
- **EINECS Number:** 231-163-8

3 Hazards identification

- **Hazard description:** · Not applicable
- **Information pertaining to particular dangers for man and environment**
Not applicable

4 First aid measures

- **After inhalation**
Supply fresh air. If required, provide artificial respiration. Keep patient warm.
Seek immediate medical advice.
- **After skin contact**
Immediately wash with water and soap and rinse thoroughly.
Seek immediate medical advice.
- **After eye contact**
Rinse opened eye for several minutes under running water.
Then consult a doctor.
- **After swallowing** Seek medical treatment.

5 Fire fighting measures

- **Suitable extinguishing agents**
Product is not flammable. Use fire fighting measures that suit the surrounding fire.
- **Protective equipment:**
Wear self-contained respirator.
Wear fully protective impervious suit.

6 Accidental release measures

- **Person-related safety precautions:**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
- **Measures for environmental protection:**
Do not allow material to be released to the environment without proper governmental permits.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **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.

7 Handling and storage

- **Handling**
- **Information for safe handling:**
Keep container tightly sealed.
Store in cool, dry place in tightly closed containers.
No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:**
The product is not flammable
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
Unsuitable material for receptacle: aluminum.
- **Information about storage in one common storage facility:**
Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:**
Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Components with limit values that require monitoring at the workplace:

Indium and compounds

	mg/m ³
ACGIH TLV	0.1(In)
Belgium TWA	0.1
Denmark TWA	0.1(In)
Finland TWA	0.1
Korea TLV	0.1(In)
Netherlands MAC-TGG	0.1
Norway TWA	0.1
Switzerland MAK-W	0.1
United Kingdom TWA	0.1(In); 0.3(In)-STEL
USA PEL	0.1(In)

- **Additional information:** No data
- **Personal protective equipment**
- **General protective and hygienic measures**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.

- **Breathing equipment:**
Use suitable respirator when high concentrations are present.
- **Protection of hands:** Impervious gloves
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing.

9 Physical and chemical properties:

- **Form:** Liquid
- **Color:** Silver-colored
- **Odor:** Odorless

<u>Method</u>	<u>Value/Range</u>	<u>Unit</u>
◦ Change in condition		
◦ Melting point/Melting range:		15-16 ° C
◦ Boiling point/Boiling range:	Not determined	
◦ Sublimation temperature / start:	Not determined	
◦ Flash point: Not determined	Not applicable	
◦ Ignition temperature:	Not determined	
◦ Decomposition temperature:	Not determined	
◦ Danger of explosion: Product does not present an explosion hazard.		
◦ Explosion limits:		
◦ Lower:	Not determined	
◦ Upper:	Not determined	
◦ Vapor pressure:	Not determined	
◦ Density:	at 20 ° C	6.1 g/cm ³
◦ Solubility in / Miscibility with		
◦ Water: to mix	Not miscible or difficult	

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
Decomposition will not occur if used and stored according to specifications.
- **Materials to be avoided:**
Oxidizing agents

Acids
Halogens
Alkali metals

- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:** Metal oxide fume

11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Subacute to chronic toxicity:**
Gallium and gallium compounds may cause metallic taste, dermatitis and depression of the bone marrow function.
Large doses may cause hemorrhagic nephritis.
Exposure to indium compounds may cause pain in the joints and bones, tooth decay, nervous and gastrointestinal disorders, heart pain and general debility. Experiments with animals also indicate that indium may cause reduced food and water consumption with weight loss, pulmonary edema, pneumonia, blood, liver and kidney damage, leg paralysis and damage to the brain, heart, adrenals and spleen.
- **Additional toxicological information:**
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12 Ecological information:

- **General notes:**
Do not allow material to be released to the environment without proper governmental permits.

13 Disposal considerations

- **Product:**
- **Recommendation**
Consult state, local or national regulations for proper disposal.
- **Uncleaned packagings:**
- **Recommendation:**
Disposal must be made according to official regulations.

14 Transport information

- **DOT regulations:**
- **Hazard class:** 8
- **Identification number:** UN1760
- **Packing group:** III
- **Proper shipping name (technical name):**
Indium Corrosive liquid, n.o.s., gallium
eutectic
- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** 8 Corrosive substances
- **Item:** 66c
- **Danger code (Kemler):** 80
- **UN-Number:** 1760
- **Description of goods:** Corrosive liquid, n.o.s., gallium
Indium
eutectic
- **Maritime transport IMDG:**
- **IMDG Class:** 8
- **UN Number:** 1760
- **Packaging group:** III
- **Proper shipping name:** Corrosive liquid, n.o.s., gallium
Indium
eutectic
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** 8
- **UN/ID Number:** 1760
- **Packaging group:** III
- **Proper shipping name:** Corrosive liquid, n.o.s., gallium
Indium
eutectic

15 Regulations

- **Product related hazard informations:**
Observe the general safety regulations when handling
chemicals
- **National regulations**
All components of this product are listed in the U.S.
Environmental Protection Agency Toxic Substances Control Act
Chemical Substance Inventory.
- **Information about limitation of use:**

For use only by technically qualified individuals.

16 Other information:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

- **Department issuing MSDS:** Health, Safety and Environmental Department.
- **Contact:** Darrell R. Sanders



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