



**INDIUM CORPORATION OF AMERICA®\EUROPE®\ASIA-PACIFIC®
INDIUM CORPORATION (SUZHOU)®
SAFETY DATA SHEET**

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: GERMANIUM
Industrial use - Metal alloy

Germanium is a hard, brittle, grayish white element. It is transparent to infrared light, which makes it useful for optical materials. It is widely used as semiconductor and as an alloying agent.

SDS Number: SDS- 4641

Revised Date: 5 JULY 2017

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2. HAZARDS IDENTIFICATION

GHS



Signal Word Warning

Hazard statement(s)

H315 Causes skin irritation
 H319 Causes serious eye irritation
 H335 May cause respiratory irritation

Precautionary statement(s)

P233 Keep container tightly closed
 P261 Avoid breathing dust/fume/gas/mist/vapors/spray
 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
 P362 Take off contaminated clothing and wash before reuse
 P301 + P314 IF SWALLOWED: Get Medical advice/attention if you feel unwell
 P302 +P352 IF ON SKIN: Wash with plenty of soap and water
 P304 + 341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
 P305 + 351 IF IN EYES: Rinse continuously with water for several minutes (15 mins)

Classification:

Skin irritation- Category 2
 Eye irritation – Category 2A
 Specific target organ toxicity- single exposure- Category 3, respiratory system

PRIMARY ROUTES OF ENTRY:

Eye Inhalation Skin Ingestion NTP

Carcinogen listed in

IARC OSHA Not Listed

POTENTIAL HEALTH EFFECTS:

Eye Contact: Causes eye irritation. May cause serious eye irritation.

Ingestion: May be harmful.

Inhalation: May cause irritation to upper respiratory tract.

Skin Contact: Causes skin irritation.

Chronic: No information available

Note: **The Indium Corporation does not recommend, manufacture, market or endorse any of it's product's for human consumption.**

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Good general exhaust ventilation should be sufficient to control airborne levels.

Personal protection:

Eyes: Chemical safety glasses/goggles. Face shield for splash or dust areas.

Respirator: An authority approved or compliant marked or other applicable air-purifying respirator with a fume/dust cartridge is recommended under certain circumstances where airborne concentrations are expected to be elevated or metal is in the form of a powder.

Skin: Compatible hot gloves when necessary. Protective outer garment, apron and sleeves as appropriate.

Other: Eyewash fountain in work area. Avoid the use of contact lenses in high fume/splash areas.

Work/Hygienic Practices: Maintain good housekeeping. Clean up spills immediately.

Avoid eating, smoking or drinking in the work area. Wash hands thoroughly with soap and water immediately upon leaving the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Metal alloy(greyish)

Boiling Point: 2830C

Odor: No odor.

Melting Point: 937C

Specific Gravity: 5.35 g/cm³

pH: Not applicable

Vapor Pressure: Not applicable.

Vapor Density: (air=1) Not applicable.

Molecular Weight: 72.64 g/mol

10. STABILITY AND REACTIVITY

General: Stable.

Conditions to Avoid: Strong oxidizing agents, halogens

Incompatible Materials: Not established

Hazardous Decomposition / Combustion: Germanium oxides

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Carcinogenicity: NTP: No

OSHA: No

IARC: No

LD50: Not established.

LC50: Not established.

Other: RTECS Number: LY5200000

LC50: rat inhalation >5,340 mg/m³/4hr

12. ECOLOGICAL INFORMATION

Germanium is insoluble and presents minimal environmental risk.

13. DISPOSAL CONSIDERATION

Waste Disposal Method: Dispose of in accordance with all Federal, State and Local environmental regulations. Recycle or reclaim/reuse metal.

14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements. Not regulated under US DOT (United States Department of Transportation). Non - hazardous for shipping, (ground/IATA/Ocean).

North American Emergency Guide Book – Not classified

UN - none

15. REGULATORY INFORMATION

The information in this Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated hereunder (29 CFR 1910.1200 ET. SEQ.).

Warning – California Safe Drinking Water Standard, Prop 65 (applicable in California): This product contains a chemical known to the State of California to cause cancer and/or birth defects (or other reproductive harm). (trace levels of lead)

SARA 313 Listing - 40 CFR 372.65 - None

Ingredients are listed on the EPA TSCA Inventory.

This product has been classified in accordance with the hazard criteria of the Mexican regulations: NOM-018-STPS-2015 and NOM-010-STPS-2014.

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation (CPR).

Canadian WHMIS classification: Not controlled.

This product has been classified in accordance with the guidelines set by the Dept. of Industrial Health of the Republic of Singapore.

Malaysia:

This product has been classified in accordance with: Malaysian – OCCUPATIONAL SAFETY AND HEALTH (CLASSIFICATION, LABELING AND SAFETY DATA SHEET OF HAZARDOUS CHEMICALS) REGULATION OCTOBER 2013 – (CLASS). (GHS)

In China:

This product has been classified using the Chinese Occupational Limit for Hazardous Agents in the Workplace, GBZ2-2007.

Decree No. 591: Regulations on the Control over Safety of Hazardous Chemicals
GB 30000.2-29-2013, Rules for classification and labeling of chemicals. (GHS)
GB/T 16483-2008, GB/T 17517-2013

16. OTHER INFORMATION

HMIS Hazard Rating:	Health:	2
	Fire:	0
	Reactivity:	0

Revised Date: 5 JULY 2017

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