



SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFIER: GALLIUM NITRATE SOLUTION

SDS NUMBER: SDS-5814

REVISED DATE: 1 JUNE 2018

PRODUCT : Industrial Use – Ga(NO₃)₃.

MANUFACTURER:

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2. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:

√ Eye √ Inhalation √ Skin √ Ingestion

CARCINOGEN LISTED IN:

NTP IARC OSHA √ Not Listed

GHS



Signal Word: Danger

Hazard statement(s)

H272 May intensify fire; oxidizer

H315 Cause skin irritation

H319 Causes serious eye irritation

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces-No smoking

P220 Keep/Store away from clothing/combustible materials

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 (or hair): Wash with plenty of soap and water

P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing

P305 + P351 IF IN EYES: Rinse continuously with water for several minutes (15 mins)

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol – resistant foam for extinction

P405 Store locked up

P501 Dispose of contents/container in accordance with local/regional/national/international regulations

Classification:

Oxidizing liquid (Category 2)

Skin irritation (Category 2)

Eye irritation (Category 2A)

POTENTIAL HEALTH EFFECTS:

Eye Contact: Causes severe irritation and possible burns.

Ingestion: May be harmful if swallowed.

Inhalation: May cause respiratory irritation.

Skin Contact: Causes skin irritation.

Note: **The Indium Corporation does not recommend, manufacture, market or endorse any of its products for human consumption.**



WARNING: This product can expose you to chemicals including [trace amounts of lead] which is known to the State of California to cause cancer, and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	% wt	CAS Registry/ #EINECS	PEL mg/m ³	TLV-TWA mg/m ³	TLV-STEL mg/m ³
GALLIUM NITRATE SOLUTION	100	13494-90-1/236-815-5			
GALLIUM NITRATE		13494-90-1	N.E.	N.E.	N.E.
NITRIC ACID		7697-37-2	2	2	4
WATER		7732-18-5	N.E.	N.E.	N.E.

N.E. = Not established

4. FIRST AID MEASURES

- Eye Contact:** Hold eyelids apart and flush eyes with plenty of tepid water for at least 15 minutes. Seek medical attention if irritation persists.
- Ingestion:** If patient is conscious, ONLY induce vomiting as directed by trained personnel. NEVER give anything by mouth to an unconscious person. Seek medical attention immediately.
- Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or oxygen by trained personnel. Seek immediate medical attention.
- Skin Contact:** Remove contaminated clothing. Wash affected area with soap and water. Wash clothing before reuse. If irritation persists, obtain medical attention.

5. FIRE FIGHTING MEASURES

- Flash Point:** Not established. **Method:** Not established.
- Auto-ignition Temperature:** Not established.
- Flammable Limits:** Limits not established, not flammable. However, solution is an oxidizer.
- Extinguishing Media:** Use extinguishers appropriate for the surrounding fire conditions. Water spray.
- Special Fire Fighting Procedures:** Firefighters must wear NIOSH approved self-contained breathing apparatus and full protective clothing.
- Explosion Data - Sensitivity to:** **Mechanical Impact:** Not established
Static Discharge: Not established

6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: For Liquids: Isolate spill and remove with absorbent or neutralize. Place material in proper container. Avoid conditions which create fumes. Ventilate area. Keep sources of ignition away.

Wear personal protective equipment. Keep unauthorized people away.

Do not allow material to be released to the environment.

7. HANDLING AND STORAGE

Handling Use good housekeeping practices.

Precautions: Keep away from sources of ignition. Liquid material should be stored away from base chemicals. Wear personal protective clothing when handling material.

Storage Precautions: Store product in a cool, dry, ventilated area away from incompatible materials. Substance is an oxidizer its heat of reaction with reducing agents or combustibles may cause ignition..

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Local exhaust ventilation is recommended, 100 feet per minute face velocity.

Personal protection:

Eyes: Chemical safety glasses/goggles. Face shield should be used if there is a splash hazard.

Respirator: A NIOSH approved or EU compliant CE marked air-purifying respirator with an acid gas/particulate/fume cartridge may be necessary if contaminants are elevated.

Skin: Rubber or chemical resistant gloves.

Other: Lab coat, eye-wash fountain in work area. Avoid the use of contact lenses in high fume areas.

Work/Hygienic Maintain good housekeeping. Clean up spills immediately. Wash hands thoroughly with soap and water immediately upon leaving the work area. Refrain from eating or smoking in work areas.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid colorless to light green **Boiling Point:** Decomposes

Odor: nitric acid odor **Melting Point:** Not available

Specific Gravity: Not established **Solubility:** Fully miscible

Vapor Pressure: Not applicable.

Vapor Density: (air=1) Not applicable. **Molecular Weight:** Not available

10. STABILITY AND REACTIVITY

General: Stable.

Conditions to Avoid: An oxidizer which may enhance fire.

Incompatible Materials: Strong reducing agents, alkali metals, flammable substances.

Hazardous Decomposition / Combustion: Emits NO_x gases when heated to decomposition.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Carcinogenicity Listing: National Testing Program (NTP): No
Occupational Safety & Health Administration (OSHA): No
U.N. International Agency for Research on Cancer (IARC): No

LD50: No information available

Oral: LD50: 4360 mg/kg (gallium nitrate)

Irritation of skin: Severe: 500 mg (gallium nitrate)

Oral: Nitric Acid: LDLo 430 mg/kg

Strong corrosive effect on skin and mucous membranes

Irritant to skin and mucous membrane

Irritancy of Product:	Irritant	Mutagenicity:	Not established
Sensitization to Product:	Not established	Teratogenicity:	Not established
Reproductive Toxicity:	Not established	Synergistic Products:	Not established

12. ECOLOGICAL INFORMATION

Do not allow undiluted product or large quantities of it to reach ground water.

13. DISPOSAL CONSIDERATION

Waste Disposal Method: Dispose of in accordance with all Federal, State and Local environmental regulations

14. TRANSPORT INFORMATION

Transport in accordance with applicable regulations and requirements.

UN 3218, Nitrates, Inorganic, Aqueous Solution, N.O.S., 5.1, PG III (gallium nitrate solution)

North America Emergency Guide Book - Guide #140

Marine Pollutant: No

PIH: No



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: This product can expose you to chemicals including [trace amounts of lead] which is known to the State of California to cause cancer, and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

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

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

In China:

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

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

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).

SARA 313 Listing - 40 CFR 372.65 None

All ingredients are listed on the EPA TSCA Inventory.

Ingredients are listed on the Canadian Domestic Substance List.

16. OTHER INFORMATION

HMIS Hazard Rating: **Health:** 2
 Fire: 0
 Reactivity: 2
 Special hazard: OX

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Prepared by: Nancy Swarts, Indium Corporation of America
Approved by: Nancy Swarts, Indium Corporation of America

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