



SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Gallium Arsenide**
PRODUCT NUMBER: 1861
CAS NUMBER: 1303-00-0
SYNONYMS: Gallium monoarsenide
MANUFACTURER:

Prochem, Inc.
826 Roosevelt Road
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IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC: 1-800-424-9300

SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

Danger

Hazard Statements

H301+H331	Toxic if swallowed or if inhaled.
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Precautionary Phrases

P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink, or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P403+P233	Store in a well-ventilated place. Keep container tightly closed

HMS CLASSIFICATION:

Health: 3 Chronic: * Fire: 0 Reactivity Hazard: 1

NFPA RATING:

Health: 3 Flammability: 0 Reactivity Hazard: 1

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

EYE CONTACT: May cause mild to severe irritation of the eyes.

SKIN CONTACT: May cause irritation of the skin, ulceration, spotty pigmentation, dermatitis, and skin cancer.

INHALATION: May be severely irritating to the nose and respiratory tract. May induce perforation of the nasal septum and cause arsenic poisoning.

INGESTION: Ingestion may lead to nausea, vomiting, bloody diarrhea, weakness, low blood pressure, shock, coma, and death.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: GaAs

Molecular Weight: 144.64

CHEMICAL NAME	CAS#	%
Gallium Arsenide	1303-00-0	100

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with plenty of water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove to fresh air and keep at rest. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases, seek immediate medical assistance.

INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 FIREFIGHTING MEASURES

FLASH POINT: Not applicable

AUTO IGNITION TEMPERATURE: Not available

EXPLOSION LIMITS: Product does not present explosion hazards.

EXTINGUISHING MEDIUM: Use carbon dioxide, sand, or extinguishing powder. Do not use water.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Arsenic oxides and gallium oxides

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid the formation of dust. Avoid breathing vapors, mist, gas, or dust.

ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Mix spills with vermiculite, sodium carbonate, or other suitable non-combustible absorbent. Sweep up and place in suitable container for proper disposal.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Use with adequate ventilation. Avoid formation of dusts and aerosols.

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Keep away from heat and moisture.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS:

Component	Exposure Limits	Basis	Entity
Gallium Arsenide	0.0003 mg/m ³	TLV	ACGIH
	0.01 mg/m ³	PEL	OSHA
	0.0002 mg/m ³	REL	NIOSH

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

EYE PROTECTION: Wear chemical safety glasses or goggles and face shield.

SKIN PROTECTION: Wear nitrile or rubber gloves, and a complete suit protecting against chemicals.

VENTILATION: Provide local exhaust, preferably mechanical.

RESPIRATOR: Use an approved respirator.

ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Dark gray solid

ODOR: None

MOLECULAR WEIGHT: 144.64

BOILING POINT: No data available

MELTING POINT: 1239.85° C

SPECIFIC GRAVITY: 5.31 gm/ml

VAPOR DENSITY: No data available

SOLUBILITY: Insoluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Not available

INCOMPATIBILITY: Strong oxidizing agents, strong acids, and steam.

DECOMPOSITION PRODUCTS: Arsenic oxide and gallium oxide. Steam may produce arsine gas.

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Intraperitoneal – mouse – 4,700 mg/kg.

CARCINOGENIC EFFECTS: This product is a known carcinogen to humans.

MUTAGENIC EFFECTS: Not available

TETRAOGENIC EFFECTS: Not available

CHRONIC TOXICITY: Not available

RTECS: LW8800000

Acute arsenic poisoning from ingestion results in marked irritation of the stomach and intestines with nausea, vomiting, and diarrhea. In severe cases, the vomitus and stools are bloody and the patient goes into collapse and shock with weak, rapid pulse, cold sweats, coma, and death. Chronic arsenic poisoning may cause disturbances of the digestive system such as loss of appetite, cramps, nausea, constipation, and diarrhea.

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 ECOLOGICAL DATA

Very toxic for aquatic organisms

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14 TRANSPORTATION DATA

DOT: UN1557 Arsenic compounds, solid, n.o.s. (Gallium arsenide) CLASS 6.1 PG II	IATA: UN1557 Arsenic compound, solid, n.o.s. (Gallium arsenide) CLASS 6.1 PG II
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Marine Pollutant: No

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory

SARA 302/304: Not Listed

SARA 311/312: Acute Health Hazard, Chronic Health Hazard

SARA (TITLE 313): Gallium Arsenide

CALIFORNIA PROP. 65: Gallium Arsenide

MASSACHUSETTS RIGHT TO KNOW COMPONENTS: No components are subject to the Massachusetts Right to Know Act.

NEW JERSEY RIGHT TO KNOW COMPONENTS: Gallium Arsenide

PENNSYLVANIA RIGHT TO KNOW COMPONENTS: Gallium Arsenide

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Prochem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

DATE PREPARED: 01/15

SDS DEPT.