

1. IDENTIFICATION

1.1 PRODUCT IDENTIFIERS

Product Name: GALLIUM ARSENIDE
Synonyms, Trade Names: GaAs

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE

Identified Uses: Optical material for manufacturing of Optical Components

1.3 DETAILS OF SUPPLIER OF THE SAFETY DATA SHEET

Company: American Photonics, Inc.
6621 19th Street East
Sarasota, FL 34243
(941) 752-5811

1.4 EMERGENCY TELEPHONE NUMBER

Emergency Phone: (941) 752-5811
Emergency Action: In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department.

2. HAZARDOUS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Class 6.1 Poison. Toxic by ingestion and inhalation with a danger of cumulative effects. Liberates highly toxic hydrogen selenide in contact with gastric juices. Dermatitis may result from prolonged contact. Particular care must be exercised when machining and creating dust or particules. Symptoms include garlic odor on breath. Dangerous to the environment.

Health	2
Flammability	0
Physical Hazard	1
Personal Protection	B




2.2 LABEL ELEMENTS

Signal Word: **Danger**

H301 Toxic if swallowed
H331 Toxic if inhaled
H410 Very toxic to aquatic life with long lasting effects

Precautionary Statements:

P262 Do not breathe dust / fumes / gas / mist / vapors / spray
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when handling this product.
P273 Avoid release to the environment.
P301+P310 IF SWALLOWED: Immediately call a poison center or doctor. Rinse mouth.
P304+P312 IF INHALED: Call a poison center or doctor / physician if you feel unwell.



2.3 OTHER HAZARDS

None

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 SUBSTANCES

Component Name	CAS Number	%	EC Number (EINECS)	EU Index
Gallium Arsenide	1303-00-0	>99%	215-114-8	033-002-00-5

4. FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

GENERAL: Consult a doctor for specific advice.

EYES: Irrigate thoroughly with water for at least 15 minutes. Obtain medical attention.

SKIN: Wash thoroughly with soap and water. Dry area with clean towel. Remove contaminated clothing and wash clothing before re-use.

INHALATION: Remove to fresh air. Perform artificial respiration if breathing has stopped. When breathing is difficult, properly trained personnel may administer oxygen. Keep affected person warm and at rest. Obtain medical attention.

INGESTION: Do not induce vomiting. Wash out mouth thoroughly with water and give 2 cups of water to drink. Do not give carbonated drinks. Never give anything by mouth to an unconscious person. Obtain medical attention immediately.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Refer to section 2.2 and to section 11.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No Data

5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

This product does not burn.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

None known.

5.3 ADVICE FOR FIREFIGHTERS

None.



6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Wear suitable protective clothing & equipment as listed under Section 8. Avoid making dust.

6.2 ENVIRONMENTAL PRECAUTIONS

Prevent further leakage or spillage. Do not let product enter drains. Do not discharge to the environment.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Take up and containerize for proper disposal. Containerize any cleaning materials use for proper disposal.

6.4 REFERENCE TO OTHER SECTIONS

Dispose as in Section 13.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Keep away from heat. Avoid contact with skin and eyes. Protect against physical damage. Avoid generating dust.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Keep away from food. Keep away from acids and strong bases.

7.3 SPECIFIC END USES

Optical Material for Manufacture of Optical Components.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

OCCUPATIONAL EXPOSURE LIMITS (OEL): 0.1 mg/m³ in 8 hour Time Weighted Average (TWA)

8.2 EXPOSURE CONTROLS

Protective gloves made of PVA are required. Use of a laboratory coat is suggested. Safety goggles or safety glasses with side shields are required if there is any possibility of chipping or dust creation. Respirators must be worn when the threshold limit is exceeded. Provide adequate general mechanical ventilation, and local exhaust ventilation. Wash hands immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Grey-black metallic geometric shapes.
ODOR:	No Odor
BOILING POINT:	Not determined
MELTING POINT:	1238° C (2260.4° F)
AUTO/SELF-IGNITE TEMP:	Not applicable
FLASH POINT:	Not applicable
FLAMMABILITY:	Not applicable
RELATIVE DENSITY:	5.31 g/mL
SOLUBILITY IN WATER:	Insoluble
pH-value:	Not Determined
Explosive Properties:	Not applicable

9.2 OTHER SAFETY INFORMATION

None

10. STABILITY AND REACTIVITY

10.1 REACTIVITY:

Reacts with strong mineral acids and strong oxidizing materials.

10.2 CHEMICAL STABILITY

Stable under normal conditions

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

None known



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10.4 CONDITIONS TO AVOID:

Can react with oxidizing agents. Avoid strong acids.

10.5 INCOMPATIBLE MATERIALS:

Strong Mineral Acids. Strong oxidizing materials.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS:

Contact with acids releases toxic gases. Arsine and oxides of arsenic can be formed.

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Toxic by ingestion and inhalation of dust, with a cumulative effect. Affects nervous systems.

Particular care must be exercised when machining and creating dust or particulates. Inhalation of dust may irritate respiratory system.

TOXIC DOSE - LD50 > 4700 g/kg

CARCINOGENICITY: No evidence of carcinogenic properties.

MUTAGENICITY/TERATOGENICITY: Refer to attached report. Particular care should be exercised when machining and creating dust or particles.

12. ECOLOGICAL INFORMATION

12.1 TOXICITY: Danger to drinking water. Poisonous to fish.

12.2 PERSISTENCE AND DEGRADABILITY No data

12.3 BIOACCUMULATIVE POTENTIAL: No data

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Chemical residues are generally classified as special waste and are covered by regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to a chemical disposal company.

14. TRANSPORT INFORMATION

14.1 UN NUMBER: 1557

14.2 UN PROPER SHIPPING NAME: Arsenic Compound, Solid, N.O.S. (Gallium Arsenide)

14.3 TRANSPORT HAZARD CLASS: 6.1

14.4 PACKING GROUP: II

14.5 ENVIRONMENTAL HAZARDS: Marine Pollutant

14.6 SPECIAL PRECAUTIONS FOR USER: None

14.7 TRANSPORT IN BULK: No data

15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS / LEGISLATIONS SPECIFIC FOR THE SUBSTANCE

TSCA: Listed in the TSCA inventory

REACH: Refer to restrictions on the manufacture, placing on the market and use Annex XVII/19

EC/552/200 - 19. Arsenic Compound



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16. OTHER INFORMATION

16.1 The above information is believed to be correct, but does not purport to be all inclusive and must be used only as a guide.

16.2 REVISION DATE: 03.23.2020