

GHS Safety Data Sheet

SDS No. : GDI01XAEG

Date Issued : 2024/10/25

Section 1. Identification of the substance or mixture and of the supplier

Product Information

Product name: Gd₂S₃ Gadolinium(III) sulfide

Product number:	Purity	Form
GDI03PB	99.9%(3N)	Powder
—	99.9%(3N),others	Powder

Company Information:

Manufacturer : Kojundo Chemical Laboratory Co., Ltd.
1-28, 5-chome, Chiyoda, Sakado-shi, Saitama Japan 350-0284
Phone: +81-49-284-1511 Fax: +81-49-284-1351
Emergency Phone : +81-49-284-1511

Recommended uses and restrictions on use: For research purposes

Section 2. Hazards identification

GHS Classification

Health Hazards	Environmental Hazards	Physical Hazards
Skin corrosion/irritation : Category 2 Serious eye damage/eye irritation : Category 2 Specific target organ toxicity, single exposure : Category 3	No data available	Flammable solids : Category 2

GHS Label:



Pictograms or symbols:

Warning word: WARNING

Hazard information	Description of precaution
Flammable solid Causes skin irritation Causes serious eye irritation May cause respiratory irritation	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use explosion-proof electrical/ventilating/lighting/...equipment. Take precautionary measures static discharge. Wear protective gloves/protective clothing/eye protection/respiratory protection/face protection during handling. Avoid breathing dust/mist/gas/fume/vapor/spray. Do not eat, drink or smoke when using this product, and wash hands thoroughly after handling. Take off the contaminated clothing and wash before reuse. Use only outdoors or in well-ventilated area. IN CASE OF FIRE: Wear protective gloves/eye protection/face protection. Use 《refer to our SDS》 to extinguish. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Remove immediately all contaminated clothing and rinse skin with water/shower. Then wash skin with plenty of soap and water. If skin irritation occurs, get medical advice/attention. Call a POISON CENTER or doctor/physician if you feel unwell. Protect from sunlight. Store in a cool, dry and well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents/ container in accordance with local/national regulations.



High Purity Materials

KOJUNDO CHEMICAL LABORATORY CO.,LTD.

Section 3. Composition / information on ingredients

Chemical or common name:	Gadolinium(III) sulfide
Chemical formula:	Single substance
Single Substance or Compound:	Gd ₂ S ₃
Composition:	100%
CAS #:	12134-77-9
RTECS#:	Not listed
TSCA inventory :	listed
EINECS:	2352171

Section 4. First aid measures

Eye contact:	Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.
Skin contact:	Promptly flush contaminated skin with soap or mild detergent and water. Contact physician if irritation continues.
Inhalation:	Remove the exposed person immediately and provide fresh air. Get medical attention.
Ingestion:	Rinse mouth and throat with water. Get medical attention immediately.

Section 5. Fire fighting measures

Extinguishing media:	Carbon dioxide, Dry chemical powder, lime, dry sand. DO NOT use a direct water stream.
Fire fighting:	Flammable material. In case of fire, the product may liberate toxic gases/ fume. Remove containers to safe place if possible. Use water spray to Cool down nearby structures and containers. Self-contained breathing apparatus and full protective clothing should be used, if the material is involved in fire.

Section 6. Accidental release measures

Personal Precautions:	Workers should use protective wears to prevent contact with the spilt adhesive and inhalation of its vapor/dusts.
Environmental hazard precautions:	Shut off leak if without risk. Prevent flow out to river, etc. so as not to badly affect.
Method for containment and cleaning up:	Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves. Wear disposable coveralls and discard them after use. Remove all sources of ignition. Avoid unnecessary contacts with spills. Indoor leakage: Ventilate as much as possible until the cleaning is completed. Outdoor leakage: Work from the windward and evacuate the leeward crowd. Absorb or cover with vermiculite or other suitable absorbent, and dispose of DOT-approved waste containers as much as possible. Carefully wash spill site with plenty of water after material pick up.



Section 7. Handling and storage

Precautions to be taken in handling:

Safe handling: Use protective wears and local ventilation equipment, if inhalation or skin contact is foreseen.
Avoid prolonged or repeated exposure.
Air and moisture sensitive. Light sensitive.
Keep away from heat, sparks and naked flame.
Electrically ground all equipment when handling this material and use only non-sparking tools.
Keep away from moisture when handling.
Keep container or bottle tightly closed when not in use.

Precautions to be taken in storage:

General precautions: Store the material in a sealed container.
Store in a cool, dry, well ventilated and dark place away from incompatible materials.
Keep away from any heat, sparks, and flames.

Section 8. Exposure controls / personal protection

Exposure guideline: ACGIH(2024) No data available
OSHA(2006) No data available
Facility measures: Local ventilation of closed work room or total proper ventilation to prevent inhalation.
Protective ware: Wear appropriate NIOSH/MSHA-approved respirator, safety goggles, impervious gloves, protective wear, protective boots etc.

Section 9. Physical and chemical properties

Color and Form: Yellowish brown solid.
Chemical formula: Ge₂S₃
Formula weight: 410.8
Melting point: 1885 °C
Density: 6.1 g/cm³ (20°C)
Solubility in water: Decomposes
Flammability: Flammable substance.
Oxidation: None

Section10. Stability and reactivity

Stability: Stable in closed container at room temperature
Decomposed by moisture in the air.
Reactivity: Sulfides release toxic hydrogen sulfide gas when in contact with acid.
Condition to avoid: Moisture, water : decomposes
Incompatibility: Oxidizing agents, strong acid.
Hazardous decomposition products.: No data available

Section11. Toxicological information

Acute toxicity: GHS : Not classified
Skin corrosive / irritation: GHS : Category 2 ; Causes skin irritation
Serious eye damage / irritation: GHS : Category 2 ; Causes serious eye irritation
Respiratory sensitization: GHS : No data available
Skin sensitization: GHS : No data available



Germ cell mutagenicity:	GHS : No data available
Carcinogenicity:	GHS : No data available
Reproductive toxicity:	GHS : No data available
Specific target organ toxicity	
—single exposure:	GHS : Category 3 ; May cause respiratory irritation
—repeated exposure:	GHS : No data available
Aspiration hazard:	GHS : No data available

Section12. Ecological information

Ecotoxicity:

Hazardous to the aquatic environment

 —acute toxicity: GHS : No data available

 —chronic toxicity: GHS : No data available

Hazardous to the ozone layer GHS : No data available

No Freon or Halon

Fish toxicity: No data available

Degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

Section13. Disposal considerations

Disposal method: User of the product should contract with the local government or licensed 'Industrial Waste Haulers' for disposal of waste.

Section 14. Transport information

UN number: 3178

IATA shipping name: FLAMMABLE SOLID, INORGANIC, N.O.S.

IATA hazard class: Class 4.1 (FLAMMABLE SOLID)

Subsidiary risk:

IATA packing group: III

HS code: 2846.90

Marine pollution: None

Section 15. Regulatory information

TSCA inventory: Listed.

Please refer to any other local / national measures that may be relevant.

Section 16. Other information

This SDS is for provision of information, and it does not represent a guarantee the properties or safeties of the product.

The information herein is based on the references we could obtained and the present state of our knowledge, however, this SDS does not always cover all information about the product.

Some new information or amendments may be added afterwards.

Prior to use, please investigate the laws and regulations of the organization, area and country where the product is to be used. The information is intended to ordinary usage, in case of special handling, sufficient care should be taken.



High Purity Materials

KOJUNDO CHEMICAL LABORATORY CO.,LTD.