

## GHS Safety Data Sheet

SDS No. : GEO05PAEG

Date Issued : 2010/02/10

Last updated : 2020/04/06

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

#### Product Information

Product name: GeO<sub>2</sub> Germanium(IV)oxide

Product number:	Purity	Form	Size or Shape
GEO06PB	99.997%(4N7)	powder	—
GEO07PB	99.99%(4N)	powder	—
GE005	—	tablet & target	—

#### 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
Acute toxicity (oral) : Category 4 Acute toxicity (inhalation):Category 4	No data available	Flammable solids : Not classified Pyrophoric solids : Not classified Self-heating substances and mixtures : Not classified Substances and mixtures which, in contact with water, emit flammable gases : Not classified

GHS Label: W



Pictograms or symbols:

Warning word: **WARNING**

Hazard information	Description of precaution
Harmful if swallowed Harmful if inhaled	Avoid breathing dust/mist/gas/fume/vapors/spray. Do not eat, drink or smoke when using this product, and wash hands thoroughly after handling. Use only outdoors or in well-ventilated area. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell. Dispose of contents/ container in accordance with local/national regulations.

### Section 3. Composition / information on ingredients

Chemical or common name: Germanium(IV) oxide

Chemical formula: GeO<sub>2</sub>

Single Substance or Compound: Single substance

Composition: 100%

CAS #: 1310-53-8

RTECS#: LY5240000



High Purity Materials

**KOJUNDO CHEMICAL LABORATORY CO.,LTD.**

TSCA inventory : Listed  
 EINECS: 2151808

#### 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: Use media appropriate for surrounding fire.

Fire fighting: The product is not combustible.  
 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:  
 Indoor leakage: Ventilate as much as possible until the cleaning is completed.  
 Outdoor leakage: Work from the windward and evacuate the leeward crowd.  
 Gather up, pack in closed DOT-approved waste container as much as possible.  
 Carefully collect remnant and move to a safe place.

#### 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.

##### 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.

#### Section 8. Exposure controls / personal protection

Exposure guideline: ACGIH(2019) : 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, protective gloves etc.

#### Section 9. Physical and chemical properties

Appearance: White solid  
 Chemical formula: GeO<sub>2</sub>



High Purity Materials

KOJUNDO CHEMICAL LABORATORY CO.,LTD.

Formula weight:	104.6
Melting point:	1116 °C(hexagonal), 1086 °C(tetragonal)
Solubility:	Water ; slightly soluble(hexagonal), insoluble(tetragonal) Hydrochloric acid, hydrofluoric acid ; soluble(hexagonal)
Flammable:	Non-combustible substance
Oxidation:	None

### Section10. Stability and reactivity

Stability:	Stable in closed container.
Reactivity	
Incompatibility:	Strong oxidizing agents

### Section11. Toxicological information

Acute toxicity(oral):	GHS : Category 4 ; Harmful if swallowed oral rat LD <sub>50</sub> = 1250 mg/kg (RTECS)
Acute toxicity(inhalation):	GHS : Category 4 ; Harmful if inhaled inhalation rat LC <sub>50</sub> (4hr) > 1.42 mg/L (RTECS)
Skin corrosive / irritation:	GHS : No data available
Serious eye damage / irritation:	GHS : No data available
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 : No data available
– 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.
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### Section 14. Transport information

UN classification:	Non-hazards
UN number:	None
HS code:	2825.60
IATA packing group:	III
Marine pollution:	None



Precautions: Container should be transported in a secure position, in a well-ventilated vehicle.

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### **Section 15. Regulatory information**

TSCA inventory: Listed.

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

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### **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.

