

## GHS Safety Data Sheet

SDS No. : GEE02PAEG

Date Issued: 2018/03/27

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

#### 1.1 Product Information

**Product name:** Ge    **Germanium**

Product number:	Purity	Form	Size (mm) or Shape
GEE06PB	99.99% (4N)	powder	300 $\mu$ m pass
GEE05PB	99.99% (4N)up	powder	45 $\mu$ m pass
GEE07PB	99.999% (5N)	powder	300 $\mu$ m pass

#### 1.2 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

### Section 2. Hazards identification

#### GHS Classification

Health Hazards	Environmental Hazards	Physical Hazards
No data available	No data available	<b>Flammable solids : Not classified</b> <b>Pyrophoric solids : Not classified</b> <b>Self-heating substances</b> <b>and mixtures : Not classified</b> <b>Substances and mixtures which,</b> <b>in contact with water, emit</b> <b>flammable gases : Not classified</b>

#### GHS Label:

Pictograms or symbols:    Not applicable

**Warning word:**    Not applicable

Hazard information	Description of precaution
Not applicable	Wear protective gloves/protective clothing/eye protection/respiratory protection/face protection during handling. Avoid release to the environment and collect spillage. Protect from sunlight. Store in a cool, dry and well-ventilated place. Keep container tightly closed.

#### Additional hazard information :

With respect to additional hazard information, see Section 11.

### Section 3. Composition / information on ingredients

Chemical or common name:    Germanium

Chemical formula:    Ge

Single Substance or Mixture:    Single substance

Composition:	100%
CAS #:	7440-56-4
RTECS#:	LY5200000
TSCA inventory :	listed
EINECS:	2311643

#### **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:	This product cannot catch fire. Use media appropriate for surrounding fire.
Fire fighting	Self-contained breathing apparatus and full protective clothing should be used, if this product 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 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.
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##### **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.
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### Section 8. Exposure controls / personal protection

Exposure guideline:	ACGIH (2013): 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.

### Section 9. Physical and chemical properties

Color and Form:	Greyish-white powder, odorless.
Chemical formula:	Ge
Formula weight:	72.64
Melting point:	937.4 °C
Boiling point:	2830 °C
Density:	5.323 g/cm <sup>3</sup>
Water solubility:	Insoluble
Flammable:	Non-flammable substance
Oxidation:	None

### Section10. Stability and reactivity

Stability:	Stable in closed container at room temperature.
Reactivity	
Incompatibility:	Strong oxidizing agents, halogens

### Section11. Toxicological information

Acute toxicity:	GHS ; No data available
Skin corrosive / irritation:	GHS ; No data available
Serious eye damage / irritation:	GHS ; No data available
Respiratory/ 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
Specific target organ toxicity	
—repeated exposure:	GHS ; No data available

Other cautions: Mechanical stimulation by dust affects eyes, skin and respiratory system.

## 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

Degradability:

No data available

Bioaccumulative potential:

Ingredients Name	Biological half-life ( day )	Rate of absorption	
		oral	respiratory tract
Ge	1	0.01	0.26

Fish toxicity:

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 classification: Not hazardous

UN number: None

HS code: 8112.99

Marine pollution: None

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

## Section 15. Regulatory information

TSCA inventory :listed

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

## Section 16. Other information

The information described above is believed to be correct. However, Kojundo Chemical Lab. makes no representation, warranty nor guarantee of any kind with respect to the information on this data sheet or any use of the product based upon this information.