

GHS Safety Data Sheet

SDS No. : BEE01PAEG

Date Issued: 2013/11/25

Last updated: 2017/06/09

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

1.1 Product Information

Product name: **Be, Beryllium**

Product number:	Purity	Form	Size or Shape(mm)
BEE02PB	99%(2N)	powder	—

1.2 Company Information:

Manufacturer : Kojundo Chemical Laboratory Co., Ltd
 1-28, 5-chome, Chiyoda, Sakado-shi, Saitama Japan 350-0284
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Section 2. Hazards identification

GHS Classification

Health Hazards	Environmental Hazards	Physical Hazards
Respiratory sensitization : Category 1 Skin sensitization : Category 1 Carcinogenicity : Category 1A Specific target organ toxicity, single exposure : Category 1 Specific target organ toxicity, repeated exposure: Category 1	Hazardous to the aquatic environment, chronic toxicity : Category 4	Flammable solids: Category 2 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: F C



Pictograms or symbols

Warning word : **DANGER**

Hazard information

Flammable solids.
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction
May cause cancer
Causes damage to organs.
(Respiratory organs)
Causes damage to organ (Respiratory organs) through prolonged or repeated exposure
May cause long lasting harmful effects to aquatic life

Description of precaution

Obtain special instructions. Read and understand all safety precautions before handling.
 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/vapors/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. Contaminated work clothing should not be allowed out of the workplace.
 Avoid release to the environment and collect spillage.
 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 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.
 Store locked up.
 Dispose of contents/ container in accordance with local/national regulations.

Additional hazard information :

In case of fire, liberates toxic gases/ fume.

With respect to additional hazard information, see Section 11.

Section 3. Composition / information on ingredients

Chemical or common name:	Beryllium
Chemical formula:	Be
Single Substance or Compound:	Single substance
Composition:	100%
CAS #:	7440-41-7
RTECS#:	DS1750000
TSCA inventory:	listed
EINECS:	2311507

Section 4. First aid measures

Eye contact:	Promptly rinse 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:

Dry sand, Perlite ,Metal fire extinguishers.
Do not use water, form or carbon dioxide.

Fire fighting: Flammable material.
Remove containers to safe place if possible.
Self-contained breathing apparatus and full protective clothing should be used, if the material is involved in fire.

Specific hazards arising from the chemical:

In case of fire, liberates toxic gases/ fume.

Combustion products: Beryllium oxide

Section 6. Accidental release measures

Personal Precautions:

Workers should use protective wears to prevent contact with the spilt adhesive and inhalation of its dusts/fume.

Environmental hazard precaution:

Shut off leak if without risk.
Prevent flow out to river, etc. so as not to badly affect.

Method for containment and cleaning up:

Remove all sources of ignition.
Avoid unnecessary contacts with spills.
DO NOT use water 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.

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.
 Keep away from heat, sparks and naked flame.
 Electrically ground all equipment when handling this material and use only non-sparking tools.

Precautions to be taken in storage:

General precautions: Store in a cool, dry place away from incompatible materials.
 Keep container or bottle tightly closed.
 Use explosion-proof electrical/ventilating/lighting equipment.

Section 8. Exposure controls / personal protection

Exposure guideline: ACGIH (2013): Beryllium and compounds
 TLV-TWA 0.00005 mg/m³ (Inhalable particles, as Be)
 OSHA (2006) : Beryllium and beryllium compounds
 PEL-TWA 0.002mg/m³ (as Be)
 Ceiling concentration 0.005mg/m³ / 0.025* mg/m³ (as Be)
 * : maximum peak , 30min for an 8 hour shift

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, face shields, protective gloves.

Section 9. Physical and chemical properties

Color and Form: Gray metal
 Chemical formula: Be
 Atomic weight: 9.01
 Melting point: 1282 °C
 Boiling point: 2970 °C
 Density: 1.85g/cm³
 Water solubility: Insoluble
 Flammable: Combustible substance
 Oxidation: None

Section 10. Stability and reactivity

Stability: Stable in closed container.

Reactivity:

Incompatibility: Acids, bases, halogens, halides, alkali metals, phosphorus
 Mixture of powdered beryllium with carbon tetrachloride or trichloroethylene will flash on heavy impact.

Condition to avoid: Heat

Section 11. Toxicological information

Acute toxicity:	GHS : No data available
Skin corrosive / irritation:	GHS : No data available
Serious eye damage / irritation:	GHS : No data available
Respiratory sensitization:	GHS : Category 1 ; May cause allergy or asthma symptoms or breathing difficulties if inhaled
Skin sensitization:	GHS : Category 1 ; May cause an allergic skin reaction
Germ cell mutagenicity:	GHS : No data available
Carcinogenicity:	GHS : Category 1A ; May cause cancer
Reproductive toxicity:	GHS : No data available
Specific target organ toxicity	
— single exposure:	GHS : Category 1 ; Causes damage to organs (Respiratory organs)
Specific target organ toxicity	
— repeated exposure:	GHS : Category 1 ; Causes damage to organs (Respiratory organs) through prolonged or repeated exposure
Aspiration hazard:	GHS : No data available

Section 12. Ecological information

Ecotoxicity:	
Hazards to the aquatic environment	
— acute toxicity:	GHS : No data available
— chronic toxicity:	GHS : Category 4 ; May cause long lasting harmful effects to aquatic life
Hazardous the ozone layer:	GHS : No data available
	No Freon or Halon
Fish toxicity:	No data available
Degradability:	No data available
Bioaccumulative potential:	Be biological half-life 180 day, Rate of absorption oral= 0.002 Respiratory tract= 0.25
Mobility in soil:	No data available

Section 13. 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 number:	1567
IATA shipping name:	Beryllium powder
IATA classification:	Hazardous Class 6.1 (Toxic substances)
subsidiary risk:	Hazardous Class 4.1 (Flammable solids)
IATA packing group:	II
HS code:	8112.12
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

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.