

GHS Safety Data Sheet

SDS No. : BIE01PAEG-01

Date Issued: 2016/02/15

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

1.1 Product Information

Product name: **Bi Bismuth**

Product number:	Purity	Form	Size (μ m)
BIE11PB	3N(99.9%)	fine powder	Ca.1~2

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

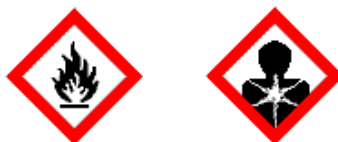
Emergency Phone : +81-49-284-1511

Section 2. Hazards identification

GHS Classification

Health Hazards	Environmental Hazards	Physical Hazards
Specific target organ toxicity, single exposure: Category 1 Specific target organ toxicity, repeated exposure: Category 1	No data available	Flammable solids: Category 1 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	Description of precaution
Flammable solids. Causes damage to organ (nervous system, kidney, articulation) Causes damage to organ through prolonged or repeated exposure. (nervous system, kidney, articulation)	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use explosion-proof electrical/ventilating/lighting/.../equipment. Take precautionary measures static discharge. Avoid breathing dust/mist/gas/fume/vapors/spray. Do not eat, drink or smoke when using this product, and wash hands thoroughly after handling. IN CASE OF FIRE: Wear protective gloves/eye protection/face protection. Use Dry sand, Perlite ,Metal fire extinguishers for extinction. 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 : With respect to additional hazard information, see Section 11.

Section 3. Composition / information on ingredients

Chemical or common name:	Bismuth
Chemical formula:	Bi
Single Substance or Compound:	Single substance
Composition:	100%
CAS #:	7440-69-9
RTECS#:	EB2600000
TSCA inventory :	listed
EINECS:	2311774

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:	Dry sand, Perlite ,Metal fire extinguishers. Do not use water, form or carbon dioxide.
Fire fighting:	Combustible 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.
Explosion hazards:	Dust explosion: Fine powder forms explosive mixtures in air.

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 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:	Eliminate all ignition sources(no smoking, flares, sparks or flames in immediate area) 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 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.
 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): 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.

Section 9. Physical and chemical properties

Color and Form: Dark gray powder.

Chemical formula: Bi

Atomic weight: 208.98

Melting point: 271.3 °C

Boiling point: 1610 °C

Density: 9.747 g/cm³

Solubility: Water: Insoluble
 Dissoluble: Nitric acid, hot sulfuric acid, aqua regia.

Flammable: Combustible substance

Oxidation: None

Section 10. Stability and reactivity

Stability: Stable in closed container.

Reactivity

Incompatibility: Aluminum, acids, oxidizing agents, halogens.

Condition to avoid: Heat

Section 11. Toxicological information

Acute toxicity(Oral): GHS ; Not classified.; Falls below the lowest level.
 Bi oral rat LD₅₀ = 5000 mg/kg (RTECS)

Acute toxicity(Dermal, inhalation): GHS ; No data available

Skin corrosive / irritation: GHS ; No data available

Serious eyes damage / eye 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 ; Category 1 ; Causes damage to organs. (nervous system, kidney, articulation)
Specific target organ toxicity —repeated exposure:	GHS ; Category 1 ; Causes damage to organ through prolonged or repeated exposure. (nervous system, kidney, articulation)
Aspiration hazard:	GHS ; No data available

Section 12. Ecological information

Ecotoxicity:	
Hazards to the aquatic environment —acute toxicity:	GHS ; No data available
Hazards to the aquatic environment —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:	Biological half-life 5 day, Rate of absorption oral=0.01 , Respiratory tract=0.26
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:	3089
IATA shipping name:	Metal powder, flammable, n.o.s.
IATA classification:	Hazardous Class 4.1 (Flammable solids, self-reactive substances and solid desensitized explosives)
IATA packing group:	II
HS code:	8106.00
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.