

## GHS Safety Data Sheet

SDS No. : BIO01PAEG

Date Issued : 2010/07/29

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

#### Product Information

Product name: Bi<sub>2</sub>O<sub>3</sub> Bismuth (III) oxide

Product number:	Purity	Form	Size or Shape
BIO11PB	99.9%(3N)	powder	—
BIO09PB	3N	fine powder	2 μm
BIO10PB	99.99%(4N)	fine powder	2 μm
BIO12PB	4N	powder	ca. 5~10 μm
BIO05PB	99.999%(5N)	powder	ca. 20 μm
BIO03GB	3N	grains	2~5 mm
BIO04GB	4N	grains	2~5 mm
BI003_BIOR4002	4N	—	φ 10×t5 (mm)
BI003_BIOR4003	4N	—	φ 20×t5 (mm)
BI004_BIOT4024	4N	target	φ 101.6×t5 (mm)
BI004_BIOT4028	4N	target	φ 152.4×t5 (mm)
—	4N	target	Various sizes, Various shapes

#### 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

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Recommended uses and restrictions on use: For research purposes

### 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 : 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: C



Pictograms or symbols:

Warning word: DANGER

Hazard information	Description of precaution
Causes damage to organs (nervous system, kidney, articulation of the bone) Causes damage to organs (nervous system, articulation of the bone, kidney) through prolonged or repeated exposure	Avoid breathing dust/mist/gas/fume/vapors/spray. Do not eat, drink or smoke when using this product, and wash hands thoroughly after handling. Call a POISON CENTER or doctor/physician if you feel unwell. Store locked up. Dispose of contents/ container in accordance with local/national regulations.



High Purity Materials

KOJUNDO CHEMICAL LABORATORY CO.,LTD.

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**Section 3. Composition / information on ingredients**

Chemical or common name:	Bismuth(III) oxide
Synonyms:	Bismuth trioxide
Chemical formula:	Bi <sub>2</sub> O <sub>3</sub>
Single Substance or Compound:	Single substance
Composition:	100%
CAS #:	1304-76-3
RTECS#:	EB2984460
TSCA inventory :	listed
EINECS:	2151347

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**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.

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**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.

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**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.

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**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 (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.

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**Section 9. Physical and chemical properties**

Color and Form:	Yellow solid, odorless
Chemical formula:	Bi <sub>2</sub> O <sub>3</sub>
Formula weight:	466.0
Melting point:	824 °C
Boiling point:	1900 °C
Density:	8.9 g/cm <sup>3</sup>
Solubility:	Soluble; acids Insoluble; water
Flammability:	Non-combustible substance
Oxidation:	No data available

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**Section10. Stability and reactivity**

Stability:	Stable in closed container under room temperature.
Reactivity	
Incompatibility:	Oxidizing agents

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**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 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 1 ; Cause damage to organs (nervous system, kidney, articulation of the bone)
— repeated exposure:	GHS : Category 1 ; Causes damage to organs (nervous system, articulation of the bone, kidney) through prolonged or repeated exposure
Aspiration hazard:	GHS : No data available

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**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

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### 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:	Not hazardous
UN number:	None
HS code:	2825.90
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.

