

GHS Safety Data Sheet

SDS No. : BBO01PAEG

Date Issued:2015/06/10

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

1.1 Product Information

Product name: **B₂O₃ Boron(III) trioxide**

Product number:	Purity:	Form:	Size :
BBO04PB	99.9%(3N)up	powder	—
BBO07PB	99.995%(4N5)	powder	—
BBO01GB	99.9%(3N)up	grains	ca. 2~5mm
BBO02GB	99.99% (4N)up	grains	ca. 2~5mm

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
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Section 2. Hazards identification

GHS Classification

Health Hazards	Environmental Hazards	Physical Hazards
Serious eye damage/eye irritation ; Category 2 Specific target organ toxicity, single exposure ; Category 3	Hazards to the aquatic environment; Not classified	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: **DANGER**

Hazard information	Description of precaution
Causes serious eye irritation May cause respiratory irritation	Wear protective gloves/protective clothing/eye protection/respiratory protection/ face protection during handling. Avoid breathing dust/fume/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 IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER or doctor/physician if you feel unwell. Protect from sunlight. Store in a cool, dry and well-ventilated place. Keep container tightly closed. 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:	Boron(III) trioxide
Chemical formula:	B ₂ O ₃
Single Substance or Compound:	Single substance
Composition:	100%
CAS #:	1303-86-2
RTECS#:	ED7900000
TSCA inventory:	listed
EINECS:	2151258

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:	Wear self contained breathing apparatus for fire fighting if necessary. The product is nonflammable.

Section 6. Accidental release measures

Personal Precautions:	Workers should use protective wears to prevent contact with the spilt adhesive and inhalation of its dust/ 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:	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.
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Precautions to be taken in storage:

General precautions:	Store in a cool, dry place away from incompatible materials. Keep container or bottle tightly closed.
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Section 8. Exposure controls / personal protection

Exposure guideline:	ACGIH (2013): Boron oxide TLV-TWA = 10 mg/m ³ OSHA (2006): Boron oxide PEL-TWA = 15 mg/m ³ (Total dust)
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:	White orthorhombic solid, odorless.
Chemical formula:	B ₂ O ₃
Formula weight:	69.6
Melting point:	450 °C
Boiling point:	ca. 1800°C
Density:	2.55 g/cm ³
Solubility	Water: (Cold) Slightly soluble (Warm)Soluble
Flammable:	non-flammable substance
Oxidation:	None

Section 10. Stability and reactivity

Stability:	Stable in a dry atmosphere under room temperature.
Reactivity	Reacts slowly with water to form boric acid. Reacts vigorously with fluorine. This produces boron fluoride and oxygen.
Incompatibility:	Fluorine, alkali metal and magnesium.
Condition to avoid:	Moisture
Hazardous decomposition products.:	No data available

Section 11. Toxicological information

Acute toxicity(Oral):	GHS : Not classified; Falls below the lowest level. Boron trioxide oral rat LD ₅₀ =3150mg/kg (RTECS(2005))
Acute toxicity(Dermal,Inhalation):	GHS : No data available
Skin corrosive / irritation:	GHS : Not classified; Falls below the lowest level.
Serious eyes damage / eye irritation:	GHS : Category 2 ; Causes serious eye irritation
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 3 ; May cause respiratory irritation
Specific target organ toxicity —repeated exposure:	GHS ; No data available
Aspiration hazard:	GHS ; No data available

Section 12. Ecological information

Ecotoxicity:

Hazards to the aquatic environment

—acute toxicity:

GHS : Not classified; Falls below the lowest level.

Boron trioxide Daphnia magna EC₅₀(48h)=2382~3155mg/l (as B₂O₃)

Hazards to the aquatic environment

—chronic toxicity:

GHS : Not classified; Falls below the lowest level.

Hazardous the ozone layer:

GHS ; No data available

No Freon or Halon

Fish toxicity:

Boron trioxide Daphnia magna EC₅₀(48h)=2382~3155mg/l (as B₂O₃)

Degradability:

No data available

Bioaccumulative potential:

B ; biological half-life 0.5 day,

Rate of absorption oral=0.9, Respiratory tract=0.7

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.

Section 14. Transport information

UN classification: Non-hazards

UN number: None

HS code: 2810.00

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.