



MATERIAL SAFETY DATA SHEET

--HEXAGONAL BORON NITRIDE POWDER

SECTION 1: IDENTIFICATION

Product Name: Hexagonal Boron Nitride Powder

Manufacturer Name: Zibo Sinyo Nitride Materials Co., Ltd.

Address: No.7 Hengji Huayuan, Zhangdian, Zibo, Shandong, CHINA

Phone: 86-533-7899768

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Web Site: www.zbsinyo.com

Recommended Use: Lubricants, Fire-Resistance, etc.

MSDS Creation Date: Jan 1, 2014

MSDS Revision Date: July 1, 2015

MSDS format: GHS

GHS Class: GHS Category 5

SECTION 2: Hazards Identification

GHS Class GHS Category 5

Emergency Overview: Product is an odourless, fine white powder, non-flammable and non-reactive. Prolonged exposition may cause eye, skin and respiratory tract irritation.

Eye contact: dust or powder may irritate eye tissue.

Skin contact: this product may cause irritation to the skin. It is not absorbed through the intact skin.

Ingestion: product may cause nausea, vomit or diarrhoea.

Inhalation: dusts of this product may cause irritation of the nose, throat, and respiratory tract.

Environmental hazard: The product is inert and not expected to present an environmental hazard.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS #</u>	<u>Ingredient Percent</u>
Boron nitride	10043-11-5	99.8 %
Boron oxide	1303-86-2	0.2%

SECTION 4: FIRST AID MEASURES

- **Eye contact:** flush immediately with tepid water for at least 20 minutes, holding the eyelids wide open. Do not rub eyes. Seek medical attention if irritation develops.
- **Skin contact:** wash thoroughly with mild soap and water. Seek medical attention if irritation develops.
- **Ingestion:** inert product, no toxic. If large amounts of the product are ingested, give 2 glasses of water. Never give anything by mouth to an unconscious person. Seek medical attention if it is required.
- **Inhalation:** remove exposed person to fresh air. Seek medical attention if it is required.
- **First aid notes to physician:** Treat symptomatically and supportively.



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SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT: NA LEL: NA UEL: NA AUTO IGN. TEMP.: NA

Dusts at sufficient concentrations can form explosive mixtures in air. Product in or near fires should be cooled with a water spray or fog. Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus (SCBA) with full face mask and full protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Preventive personal measures: Avoid dust inhalation and eye or skin contact. (See section 8).

Preventive environmental measures: Inert product. It does not present any known environmental risk.

Cleaning measures: Pick up with appropriate implements and return to suitable container.

SECTION 7: HANDLING AND STORAGE

Handling: Containers should be closed.

Storage: Store in a dry place far away from incompatible materials. It is recommended to keep installations cleaned and avoid accumulation of dusts. In case of vacuuming cleaning a unit that contains a HEPA filter is recommended.

Empty Containers: Product packaging may contain product residue. Do not reuse.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.

Personal protective measures: The usual precautionary measures for handling chemicals should be followed.

Eye protection: safety glasses.

Protection of hands: impervious gloves.

Breathing protection: use suitable respirator when high concentrations are present.

Hygienic measures: Keep away from foodstuffs, beverages and feed. Wash hands after handling.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE & PHYSICAL STATE: White powder

MELT POINT: Boron nitride and boron oxide sublime at 3000oF (1650oC).

VAPOR DENSITY (AIR=1): Not Applicable

OCTANOL/WATER PARTITION

COEFFICIENT: Not Determined

VAPOR PRESSURE: Not Applicable

EVAPORATION RATE BuOAC = 1: NA

ODOR: None

SPECIFIC GRAVITY/BULK DENSITY:

SG = 2.1 – 2.2 g/cc

% VOLATILE BY VOLUME: Not volatile

BOILING POINT: Not Determined

% SOLUBILITY (H2O): Insoluble

pH: Not Determined

OTHER: Not Applicable

SECTION 10: STABILITY AND REACTIVITY



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Chemical Stability: Product is stable. Hazardous polymerisation will not occur. Product does not react with many deacidizing materials, so it does not belong to oxidizer of division 5.1. It does not react with metals such as Zn or Al and has no harm to skin, so it does not belong to corrosives.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicity: No toxic. According to the experience and the relevant materials, the substance does not cause acute poisoning to human. It does not belong to toxic substance.

Skin contact: Not known allergies. Product does not have narcotic, noxious, irritating and other characters to cause extreme annoyance or discomfort to crewmembers and passengers, so it does not belong to miscellaneous dangerous goods.

SECTION 12: ECOLOGICAL INFORMATION

Detailed environmental studies have not been conducted on the product. It is , however, not expected to present an environmental hazard.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste handling: Product is considered non-hazardous. Non special recommendations applied.

Packaging disposal: Should be in accordance with all local, state, and federal regulations.

SECTION 14: TRANSPORT INFORMATION

U.S. Department of Transportation (DOT)

Proper Shipping Name: Not Regulated

Hazard Class: Not applicable

UN/NA Code: Not applicable

Packing Group: Not applicable

SECTION 15: REGULATORY INFORMATION

Risk phrases: R36/37/38- Irritating to eyes, respiratory system and skin.

Safety phrase: S22-Do not breathe dust.

S37/39-wear suitable gloves and eye/face protection.

Boron Nitride:

TSCA Inventory Status: Lsited

EINECS Number:233-136-6

Canda DSL: Listed

South Korea KECL: Listed: KECL number-KE-03535

Australia AICS: Listed: Assessed by NICNAS: No

Boron Oxide:

TSCA Inventory Status: Lsited

EINECS Number:215-125-8



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Massachusetts: Listed

Pennsylvania: Listed

Canada DSL: Listed

Canada IDL: Identified under the Canadian Hazardous Products Act Ingredient

Disclosure List: 0.1%.205(228)

South Korea KECL: Listed: KECI number-KE-09919

Australia AICS: Listed: Assessed by NICNAS: No

SECTION 16: OTHER INFORMATION

Not Est. = Not Established

NA = Not Applicable

NFPA Ratings:

Health: 1 Flammability: 1 Reactivity: 0

HMIS Ratings:

Health: 1 Flammability: 1 Reactivity: 0

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