

**FINE ABRASIVES TAIWAN CO., LTD.**

No.160, Daxing 10th St., Luzhu Dist., Taoyuan City 33862, TAIWAN

TEL: 886-3-313-3343

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WEBSITE: <http://www.factdiamond.com>E-MAIL: [fact@factdiamond.com](mailto:fact@factdiamond.com)**MATERIAL SAFETY DATA SHEET**  
**cBN****SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME : CUBIC BORON NITRIDE (cBN)  
 PRODUCT DESCRIPTION : BBN、YBN、TiBBN、TiYBN、BBN-60NS、YBN-45NS、YBN-60NS、YBN-70NS、SERISE.  
 COMPANY NAME : FINE ABRASIVES TAIWAN CO.,LTD.  
 COMPANY INFO. : NO.160 Daxing, 10th. St.Luzhu Dist. Taoyuan City,Taiwan.  
 TEL : 886-3-3133343 FAX : 886-3-313-3328  
 DATA UPDATE : 25/09/2023

**SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS**

MATERIAL	CAS NO.	%BY WEIGHT	OSHA PEL-TWA	ACGIH TLV-TWA
CBN	10043-11-5	25-100%	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>
NICKEL	7440-02-0	0-70%	1 mg/m <sup>3</sup>	1.5 mg/m <sup>3</sup>
TITAMIUUM	7440-32-6	0-3%	15 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>

NOTE: EXTRACT % BY WEIGHT FIGURES DEPEND ON PRODUCT GRADE.



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## cBN

### SECTION 3 HAZARD IDENTIFICATION

Cubic Boron Nitride (cBN) does not in its intact form present a health hazard. Cubic Boron Nitride is non-toxic. Exposure to the elements listed in section 2, by skin contact, ingestion and inhalation can occur when handling, chemically treating, heat treating, abrasive cutting, grinding, polishing or abrading the surface of this material in a manner which generates particulates. Metallic Nickel is listed by IARC as a Group 2B—Possibly Carcinogenic to Humans. Boron compounds are toxic and can cause boron poisoning

#### Potential Health Effects:

**Eye :** Slight irritation, high concentrations may cause conjunctivitis.

**Skin:** Tissue irritant .Nickel may cause dermatitis. Nickel is a contact allergen and sensitizer.

**Ingestion:** Tissue irritant.

**Inhalation:** Mists or dry dust can cause congestion and tissue irritation.

### SECTION 4 FIRST AID MEASURE

**Inhalation:** If high concentrations are inhaled or if worker exhibits trouble breathing, remove to fresh air, if symptoms persist, seek medical attention.

**Skin Contact:** Wash affected areas thoroughly with soap and water.  
Seek medical attention if irritation persists.

**Eye Contact:** Remove contact lenses. Flush eyes with water for 15 minutes.  
Seek medical attention if irritation persists.

**Ingestion :** Seek medical attention if irritation persists.



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### **SECTION 5 FIRE FLGHTING MEASURES**

cBN is not a fire hazard and under normal condition is non-combustible. However dust produced from working may be flammable and may pose a fire hazard .if allowed to accumulate in the prescience of an ignition source.Cubic Boron Nitride coated materials may generate toxic gases during a fire and self-contained breathing.

Flash point : N/A

Upper Explosion Limits : N/A

Lower Explosion Limits : N/A

### **SECTION 6 ACCIDENTAL RELEASE MEASURES**

Personal protection :

Use proper protective equipment as indicated in SECTION 8.

Respiratory protection should be worn if hazardous components exceed exposure limits listed in section 2

Environmental : Isolate the area the spill has occurred.

Method of Cleaning-up : Clean-up spilled material.Avoid generating dust during clean-up operations.

### **SECTION 7 HANDING AND STORAGE**

Handing : Avoid contact with skin and eyes.Wash hands after handling.

Maintain good house keeping procedures to avoid dust accumulation or product becoming airborne.

Storage:Keep material in a tightly closed. Store in a cool dry area.



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### SECTION 8 EXPOSE CONTROLS/PERSONAL PROTECTION

**Engineering Measures :** Local ventilation should remove any vapour or mist generated while handling this product.

**Hygiene Measures :** Wash hand after handling.

**Personal Protection Equipment :** Wear safety glasses with side shields when grinding or cutting this product. Wear safety glove to avoid contact directing. Wear protective appropriate clothing to avoid skin contact with dust generated during operations.

### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

The cubic Boron Nitride is normally clear amber or brown but will vary due to the coating on the CBN surface. If coated with Nickel or Titanium the powder will be grey powder in colour.

**Odour :** none

**pH :** N/A

**Flash point :** N/A

**Flammability :** N/A

**Boiling point :** N/A

**Explosive properties :** N/A

**Vapor pressure :** N/A

**Vapour Density :** N/A

**Solubility in water :** N/A

**Partition coefficient :** N/A

DATE : 2023.09.25



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### SECTION 10 STABILITY AND REACTIVITY

**Stability :** Stable

**Conditions to avoid :** High heat and flame.

Under special conditions, nickel on the cBN can react with carbon monoxide in reducing atmosphere to form nickel carbonyl, a toxic gas.

**Materials to Avoid:** Contact with strong acids. Contact of dust with strong oxidize may cause fire or explosion.

**Hazardous Decomposition:** Carbon dioxide.

### SECTION 11 TOXICOLOGICAL INFORMATION

**Inhalation:** Cubic Boron Nitride dust may irritate throat and respiratory system, may cause coughing.

**Skin Contact:** Cubic Boron Nitride dust may irritate skin.

**Eye Contact:** Cubic Boron Nitride dust may cause irritation.

**Ingestion:** Not likely due to the form of the product.

**Acute Toxicity:** Nickel is identified by IARC as a group 2B carcinogen.  
Boron compounds have toxic effects on the central nervous system

**Local effects:** n/a

**Sensitization:** n/a

**Chronic Toxicity:** n/a

**Long term Toxicity:** n/a

**Specific Effects:** n/a



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### SECTION 12 ECOLOGICAL INFORMATION

Mobility :	No influence
Persistence/Degradal	No influence
Bioaccumulation :	No influence
Eco-toxicity :	This product is not expected to be toxic to the environment. Adopt sound working practices, so that the product is not released into the environment.

### SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in accordance with appropriate government regulation.  
May be sold as scrap for reclaim.

### SECTION 14 TRANSPORT INFORMATION

ADR : Not regulated.  
RID : Not regulated.  
IMDG : Not regulated.  
ICAO/IATA : Not regulated.

### SECTION 15 REGULATORY INFORMATION

Regulations : This MSDS has been prepared according to EU regulation.  
EC Directives 67/548/EEC & 88/379/EEC

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### SECTION 16 OTHER INFORMATION

Nickel:R40 possible risk of irreversible effect. R43 May cause sensitisation by skin contact.

The information contained herein is base on our state of knowledge at the above-specified date.If refers solely to the product indicated and constitutes no guarantee of particular quality.It is the duty of user that this information is appropriate and complete with respect to the specific use intended.The MSDS cancels an replaces any preceding release.

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