

Material Safety Data Sheet

Regulation (EC) No. 1907/2006, 1272/2008

Version No.: 1.0

Printing Date: January 3, 2025

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MSDS REPORT

CHINA BORON TECHNOLOGY (WEIHAI) LTD
NO.9 CHANGXING ROAD, NANHAI NEW DISTRICT, WEIHAI CITY, SHANDONG PROVINCE, CHINA

MSDS Report No.	:	MSDS202501030105
Compilation Date	:	January 3, 2025
Trade Name	:	BORON CARBIDE
Composition/Ingredient of The Sample	:	See Section 3 on the MSDS
Service Requested	:	Material Safety Data Sheet (MSDS) for the sample with submitted composition.
Summary	:	As per request, the contents and formats of the MSDS are prepared in accordance with Regulation (EC) No 1907/2006, its amendment Regulation (EU) No 2020/878, (EC) No 1272/2008 and are provided per attached.



Signed for and on behalf of
Technical Center:

Jack Lee

Material Safety Data Sheet

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
 - Trade name: BORON CARBIDE
 - EC No: 235-111-5
 - CAS No: 12069-32-8
 - Index No.: No data available.
 - REACH Registration No.: No data available.
 - HS Code: 28499010
- **1.2 Relevant identified uses of the substance or mixture and uses advised against on**
 - Application of the substance/ mixture: Refractory materials, Abrasive materials.
 - Uses advised against: No data available
 - Reason why uses advised against: No data available
- **1.3 Details of the supplier of the safety data sheet**
 - Manufacturer/ Supplier:
China Boron Technology (Weihai) Ltd
No. 9 Changxing Road, Nanhai New district, Weihai City, Shandong Province, China
Tel: +086 18742511268
Email: Xexinkun9@126.com
 - Only Representative/other EU contact point: Information not available
 - Further information obtainable from: China Boron Technology (Weihai) Ltd
- **1.4 Emergency telephone number**
Derek Xie
Tel: +086 18742511268 (8:30am-17:00 pm)
Language: English / Chinese

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
 - 2.1.1 Classification according to regulation (EC) 1272/2008: The product is not classified according to CLP Regulation.

Regulation (EC) No 1272/2008 [CLP]	Classification procedure
Not applicable	Not applicable

- **2.2 Label elements**
 - Labeling according to Regulation (EC) No 1272/2008: The product is not labelled according to CLP Regulation.
 - Hazard pictograms: Not applicable
 - Signal word: Not applicable
 - Hazard statements: Not applicable
 - Precautionary statement: Not applicable
- **2.3 Other hazards**
Substance does not meet the criteria for PBT/vPvB in accordance with Annex XIII.
Substance was not identified as having endocrine disrupting properties according to Regulation (EU) 2017/2100.

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SECTION 3: Composition/information on ingredients

3.1 Substance

Substance name	CAS No.	EC No.	Index No	Weight %	SCL/ M-factor/ATE
Boron carbide	12069-32-8	235-111-5	-	98	-
Diiron trioxide	1309-37-1	215-168-2	-	1	-
Silicon	7440-21-3	231-130-8	-	1	-

3.2 Mixture

Not applicable

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice: No special first aid measure required normally.**After inhalation:** Supply with fresh air. Get medical advice/attention if feel unwell.**After skin contact:** Wash skin with water. If skin irritation occurs: Get medical advice/attention.**After eye contact:** Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.**After swallowing:** Rinse mouth. Call a POISON CENTRE/doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed:

 No known symptoms or effects.

4.3 Indication of any immediate medical attention and special treatment needed:

 No special immediate medical attention or special treatment needed.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing agents: Not flammable solid, use the suitable extinguishing agents surrounding condition.

Unsuitable extinguishing media: Not applicable.

5.2 Special hazards arising from the substance or mixture:

 No special hazards arising from the substance.

5.3 Advice for firefighters

Protective equipment: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Protective equipment: Protective gloves/ dust mask.**Emergency procedures:** Ensure good ventilation; Keep away from acid; Avoid breathing dust.

6.1.2 For emergency responders

Personal protective equipment: Wear protective gloves/ dust mask.

6.2 Environmental precautions:

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Prevent further leakage or spillage if safe to do so; Prevent spillage from entering drains, sewer, basement or confined areas; if the spillage contaminates rivers, lakes or drains inform respective authorities.

• **6.3 Methods and material for containment and cleaning up:**

Ensure good ventilation; Dispose contaminated material as waste according to section 13.

• **6.4 Reference to other sections:**

See section 7 for information on safe handling; See section 8 for information on personal protection equipment; See section 13 for disposal information.

SECTION 7: Handling and storage

• **7.1 Precautions for safe handling:** Ensure good ventilation at workplace; Avoid breathing dust.

• **Information about fire and explosion protection:** Normal measures for preventive fire protection.

• **7.2 Conditions for safe storage, including any non-compatibility**

• **Requirements to be met by storerooms and receptacles:** Store in a dry and well-ventilated place.

• **Information about storage in one common storage facility:** Keep container tightly closed.

• **Further information about storage conditions:** No further requirements.

• **Storage class:** 13.

• **7.3 Specific end use(s):** See section 1.2.

SECTION 8: Exposure controls/personal protection

• **8.1 Control parameters**

• **Ingredients with limit values that require monitoring at the workplace:**

Country	Limit value - Eight hours	Limit value - Short term
12069-32-8 Boron carbide		
Latvia	6 mg/m ³	-
1309-37-1 Diiron trioxide		
Austria	5 mg/m ³ Respirable aerosol	10 mg/m ³ Respirable aerosol
Belgium	2ppm; 5 mg/m ³	-
Denmark	3.5 mg/m ³	7 mg/m ³
Finland	5 mg/m ³ calculated as Fe; fume	-
Hungary	6 mg/m ³ Respirable aerosol	-
Ireland	5 mg/m ³	10 mg/m ³ 15 minutes reference period
Poland	5 mg/m ³ Inhalable fraction 2.5 mg/m ³ Respirable fraction	10 mg/m ³ Inhalable fraction; 15 minutes average value 5 mg/m ³ Respirable fraction; 15 minutes average value
Romania	5 mg/m ³	10 mg/m ³ 15 minutes average value
Spain	5 mg/m ³	-
Sweden	3.5 mg/m ³	-
United Kingdom	5 mg/m ³	10 mg/m ³
7440-21-3 Silicon		
Belgium	10mg/m ³	-
Denmark	10 mg/m ³ Inhalable aerosol	20 mg/m ³ Inhalable aerosol

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France	10 mg/m ³ Respirable aerosol	-
Ireland	10 mg/m ³ (Inhalable fraction; 4 mg/m ³ Respirable fraction	-
United Kingdom	10 mg/m ³ Inhalable fraction; 4 mg/m ³ Respirable fraction	-

- **DNELs:** No available data.

- **PNECs:** No available data.

- **Additional information:** The lists valid during the marking were used as basis.

• 8.2 Exposure controls

- **Based on the composition shown in section 3, the following measures are suggested for occupational safety measure.**

- **Appropriate engineering controls:**

Handle in accordance with good industrial hygiene and safety practice; Wash hands and face before breaks and at the end of work;

See section 7 for information about design of technical facilities.

- **Personal protective equipment**

- **Eye and face protection:** No special eye and face protection required.

- **Skin protection**

- **Hand protection:** No special protection of hands required.

- **Other skin protection:** No special protection required.

- **Respiration protection:** Dust mask is necessary.

- **Thermal hazards:** No special requirement.

- **Environmental exposure controls:**

Control measures must be made in accordance with Community environmental protection legislation.

SECTION 9: Physical and chemical properties

• 9.1 Information on basic physical and chemical properties

• Physical state	Powder
• Color	Grey-black
• Odor & Odor threshold	Odorless
• Melting point/freezing point	2450°C
• Boiling point or initial boiling point and boiling range	Not determined
• Flammability	Not flammable solid
• Lower and upper explosion limit	Not applicable
• Flash point	Not applicable
• Auto-ignition temperature	Not applicable
• Decomposition temperature	Not determined
• pH	Not determined, this product is insoluble in water.
• Kinematic viscosity (mm²/s)	Not applicable
• Solubility	Insoluble in water.
• Partition coefficient n-octanol/water (log value)	Not applicable
• Vapor pressure	Not applicable

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• Density and/or relative density	2.52 at 20°C
• Relative vapor density	Not applicable
• Particle characteristics	Not determined
• 9.2 Other information	
• 9.2.1 Information with regard to physical hazard classes:	
• Explosives	Not applicable
• Flammable gases	Not applicable
• Aerosols	Not applicable
• Oxidising gases	Not applicable
• Gases under pressure	Not applicable
• Flammable liquids	Not applicable
• Flammable solids	Not applicable
• Self-reactive substances and mixtures	Not applicable
• Pyrophoric liquids	Not applicable
• Pyrophoric solids	Not applicable
• Self-heating substances and mixtures	Not applicable
• Substances and mixtures, which emit flammable gases in contact with water	Not applicable
• Oxidizing liquids	Not applicable
• Oxidizing solids	Not applicable
• Organic peroxides	Not applicable
• Corrosive to metals	Not applicable
• Desensitised explosives	Not applicable
• 9.2.2 Other safety characteristics	
• Mechanical sensitivity	Not applicable
• Self-accelerating polymerisation temperature	Not applicable
• Formation of explosible dust/air mixtures	Not applicable
• Acid/alkaline reserve	Not applicable
• Evaporation rate	Not applicable
• Miscibility	Not applicable
• Conductivity	Not applicable
• Corrosiveness	Not applicable
• Gas group	Not applicable
• Redox potential	Not applicable
• Radical formation potential	Not applicable
• Photocatalytic properties	Not applicable
• Other physical and chemical parameters	Not determined

SECTION 10: Stability and reactivity

- 10.1 Reactivity: No decomposition if used according to specification.
- 10.2 Chemical stability: Stable under recommended storage conditions.

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- **10.3 Possibility of hazardous reactions:** No known hazardous reaction.
- **10.4 Conditions to avoid:** No special avoid condition.
- **10.5 Incompatible materials:** No special incompatible materials.
- **10.6 Hazardous decomposition products:** No known hazardous decomposition products.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
 - **Acute toxicity:** Based on available data, the classification criteria are not met.
 - **LD50/LC50 values relevant for classification:** No available data.
 - **Skin corrosion/irritation:** Based on available data, the classification criteria are not met.
 - **Serious eyes damage/ irritation:** Based on available data, the classification criteria are not met.
 - **Respiratory or skin sensitization:** Based on available data, the classification criteria are not met.
 - **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
 - **Carcinogenicity:** Based on available data, the classification criteria are not met.
 - **Reproductive toxicity:** Based on available data, the classification criteria are not met.
 - **Summary of evaluation of the CMR properties:** Not classified as CMR product.
 - **STOT-single exposure:** Based on available data, the classification criteria are not met.
 - **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
 - **Aspiration hazard:** Based on available data, the classification criteria are not met.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties:

Substance was not considered to have endocrine-disrupting properties with respect to humans as it meets the criteria set out in section A of Regulation (EU) No 2017/2100.

11.2.2 Other information: No known other relevant information on adverse health effects.

SECTION 12: Ecological information

- **12.1 Toxicity:** No available data.
- **12.2 Persistence and degradability:** No available data.
- **12.3 Bio-accumulative potential:** No available data.
- **12.4 Mobility in soil:** No available data.
- **12.5 Results of PBT and vPvB assessment**

According to the results of its assessment, this substance is not a PBT or a vPvB.

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• **12.6 Endocrine disrupting properties:**

This substance does not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100.

• **12.7 Other adverse effects:** No known other adverse effects.

• **12.8 Additional ecological information**

• **General notes:** WGK1 (German Regulation) (self-assessment): Low hazardous for water.

Do not allow large quantities of the product to reach ground water, water course or sewage system.

SECTION 13: Disposal consideration

• **13.1 Waste treatment methods**

• **Recommendation:** Small quantities can be disposed together with household garbage; Large quantities disposed must be in according to the local regulation.

• **13.2 Un-cleaned packaging**

• **Recommendation:** Dispose of contents/container in according to the local regulation.

SECTION 14: Transport information

• 14.1 UN-Number ADR, RID, ADN, IMDG, IATA	Not regulated as dangerous transport goods, not applicable
• 14.2 UN proper shipping name ADR, RID, ADN, IATA, IMDG	Void
• 14.3 Transport hazard class (es) ADR, RID, ADN, IATA, IMDG Class Label	Void Void
• 14.4 Packing group ADR, RID, ADN, IMDG, IATA	Void
• 14.5 Marine pollution	No
• 14.6 Special precautions for user • Danger code (Kemler) • EMS number	Void Void Void
• 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Void

SECTION 15: Regulatory information

• **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

• **MAK (German Maximum Workplace Concentration):** Not listed.

• **Directive 2012/18/EU**

• **Named dangerous substances-ANNEX I:** Not listed.

• **Seveso category:** Not applicable

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- **Qualifying quantity (tonnes) for the application of lower-tier requirements:** Not applicable
- **Qualifying quantity (tonnes) for the application of upper-tier requirements:** Not applicable
- **National regulations.**
- **Water hazard class:** WGK1 (German Regulation) (self-assessment): Low hazardous for water.
- **Other regulations, limitations and prohibitive regulations**
- **SVHC Candidate list of REACH Regulation Annex XIV Authorization:** Not listed.
- **REACH Regulation Annex XVII Restriction:** Not listed.
- **REACH Regulation Annex XIV Authorization List:** Not listed.
- **15.2 Chemical safety assessment:** A Chemical Safe Assessment has not been carried out.

SECTION 16: Other information

• 16.1 Indication of changes:

Not applicable

• 16.2 Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).

IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association.

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

PBT: Persistent, Bio accumulative and Toxic

SVHC: Substance of Very High Concern

LD50: Lethal dose, 50 percent

LC50: Lethal concentration, 50 percent

• 16.3 Key literature references and sources for data:

<https://echa.europa.eu/>

<https://chem.nlm.nih.gov/>

<https://www.osha.gov/>

<http://www.unece.org/>

<http://www.imo.org/>

<https://www.dguv.de/>

<https://epa.govt.nz/>

<http://www.ilo.org/>

<https://www.phmsa.dot.gov/>

• 16.4 Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]:

Not applicable

• 16.5 Relevant H- and EUH-phrases (number and full text):

Not applicable

• 16.6 Training advice:

Workers must be educated and trained so they can read MSDS and understand the hazards, and know how to work safely with

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hazardous products

· 16.7 Further information

The contents and format of this MSDS are in accordance with Regulation (EC) No 1907/2006, its amendment Regulation (EU) No 2020/878 and (EC) No 1272/2008.

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**

End of material safety data sheet