

## Material Safety Data Sheet

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

Version No.: 1.0

Printing Date: January 3, 2025

Page 1/1

## 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

## Regulation (EC) No. 1907/2006 and 1272/2008

Printing Date: January 3, 2025

Version No.: 1.0

Revision: January 3, 2025

Trade Name: BORON CARBIDE

### 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, Nanhui 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.

# Material Safety Data Sheet

## Regulation (EC) No. 1907/2006 and 1272/2008

Printing Date: January 3, 2025

Version No.: 1.0

Revision: January 3, 2025

Trade Name: BORON CARBIDE

### 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:

# Material Safety Data Sheet

## Regulation (EC) No. 1907/2006 and 1272/2008

Printing Date: January 3, 2025

Version No.: 1.0

Revision: January 3, 2025

**Trade Name: BORON CARBIDE**

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 <sup>3</sup>	-
1309-37-1 Diiron trioxide		
Austria	5 mg/m <sup>3</sup> Respirable aerosol	10 mg/m <sup>3</sup> Respirable aerosol
Belgium	2ppm; 5 mg/m <sup>3</sup>	-
Denmark	3.5 mg/m <sup>3</sup>	7 mg/m <sup>3</sup>
Finland	5 mg/m <sup>3</sup> calculated as Fe; fume	-
Hungary	6 mg/m <sup>3</sup> Respirable aerosol	-
Ireland	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup> 15 minutes reference period
Poland	5 mg/m <sup>3</sup> Inhalable fraction 2.5 mg/m <sup>3</sup> Respirable fraction	10 mg/m <sup>3</sup> Inhalable fraction; 15 minutes average value 5 mg/m <sup>3</sup> Respirable fraction; 15 minutes average value
Romania	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup> 15 minutes average value
Spain	5 mg/m <sup>3</sup>	-
Sweden	3.5 mg/m <sup>3</sup>	-
United Kingdom	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>
7440-21-3 Silicon		
Belgium	10mg/m <sup>3</sup>	-
Denmark	10 mg/m <sup>3</sup> Inhalable aerosol	20 mg/m <sup>3</sup> Inhalable aerosol

# Material Safety Data Sheet

## Regulation (EC) No. 1907/2006 and 1272/2008

Printing Date: January 3, 2025

Version No.: 1.0

Revision: January 3, 2025

Trade Name: BORON CARBIDE

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

· <b>Physical state</b>	Powder
· <b>Color</b>	Grey-black
· <b>Odor &amp; Odor threshold</b>	Odorless
· <b>Melting point/freezing point</b>	2450°C
· <b>Boiling point or initial boiling point and boiling range</b>	Not determined
· <b>Flammability</b>	Not flammable solid
· <b>Lower and upper explosion limit</b>	Not applicable
· <b>Flash point</b>	Not applicable
· <b>Auto-ignition temperature</b>	Not applicable
· <b>Decomposition temperature</b>	Not determined
· <b>pH</b>	Not determined, this product is insoluble in water.
· <b>Kinematic viscosity (mm<sup>2</sup>/s)</b>	Not applicable
· <b>Solubility</b>	Insoluble in water.
· <b>Partition coefficient n-octanol/water (log value)</b>	Not applicable
· <b>Vapor pressure</b>	Not applicable

# Material Safety Data Sheet

## Regulation (EC) No. 1907/2006 and 1272/2008

Printing Date: January 3, 2025

Version No.: 1.0

Revision: January 3, 2025

**Trade Name:** BORON CARBIDE

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

# Material Safety Data Sheet

## Regulation (EC) No. 1907/2006 and 1272/2008

Printing Date: January 3, 2025

Version No.: 1.0

Revision: January 3, 2025

Trade Name: BORON CARBIDE

- **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.

# Material Safety Data Sheet

## Regulation (EC) No. 1907/2006 and 1272/2008

Printing Date: January 3, 2025

Version No.: 1.0

Revision: January 3, 2025

Trade Name: BORON CARBIDE

**· 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

*Void*

Label

*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)

*Void*

· EMS number

*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

# Material Safety Data Sheet

## Regulation (EC) No. 1907/2006 and 1272/2008

Printing Date: January 3, 2025

Version No.: 1.0

Revision: January 3, 2025

**Trade Name:** BORON CARBIDE

- **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) 1272/2008 [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

**Material Safety Data Sheet**  
**Regulation (EC) No. 1907/2006 and 1272/2008**

**Printing Date: January 3, 2025**

**Version No.: 1.0**

**Revision: January 3, 2025**

**Trade Name: BORON CARBIDE**

*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.*

**DISCLAIMER OF LIABILITY:**

*The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.*

\*\*\*\*\*

\*\*

*End of material safety data sheet*