

SAFETY DATA SHEET

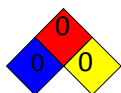
Per OSHA HCS (29 CFR 1910.1200)

Section 1: *Identification*

- **Product identifier**
 - **Trade name:** Boron Carbide
 - **Article number:** No other identifiers
 - **CAS Number:**
12069-32-8
 - **Recommended use and restriction on use**
 - **Recommended use:** abrasives, ceramics
 - **Restrictions on use:** Contact manufacturer
 - **Details of the supplier of the Safety Data Sheet**
 - **Manufacturer/Supplier:**
Panadyne Inc.
516 Stump Rd.
Montgomeryville, Pa 18936
215.444.9315
 - **Emergency telephone number:**
215.444.9315
-

Section 2: *Hazard(s) Identification*

- **Classification of the substance or mixture:**
Not a hazardous substance or mixture.
- **Label elements**
- **GHS label elements:**
Not a hazardous substance or mixture.
- **Hazard pictograms:** Not Regulated
- **Signal word:** Not Regulated
- **Hazard-determining components of labeling:** None
- **Hazard statements:** Not Regulated
- **Precautionary statements:** Not Regulated
- **Hazard description:** Not Regulate
- **WHMIS-symbols:** Not hazardous under WHMIS
- **Classification system**
- **NFPA ratings (scale 0 - 4)**



Health = 0
Fire = 0
Reactivity = 0

SAFETY DATA SHEET

Per OSHA HCS (29 CFR 1910.1200)

· HMIS-ratings (scale 0 - 4)

| | |
|------------|---|
| HEALTH | 0 |
| FIRE | 0 |
| REACTIVITY | 0 |

- Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

Section 3: *Composition/information on Ingredients*

- **Chemical characterization:** Substances
- **CAS No. Description:**
12069-32-8 Boron carbide

Synonyms : Carbon tetraboride

Formula : B₄C

Molecular Weight : 55.25 g/mol

EC-No. : 235-111-5

No ingredients are hazardous according to OSHA criteria.

No components need to be disclosed according to the applicable regulations.

Section 4: *First-aid Measures*

- **Description of first aid measures**
- **General information**
- **After inhalation:**
Respiration of particulates is unlikely during normal usage. Supply fresh air; consult doctor in case of complaints
- **After skin contact:**
Brush off loose particles from skin. Clean with water and soap. If skin irritation is experienced, consult a doctor.
- **After eye contact:**
Rinse eyes with water for several minutes, remove contact lenses (if present) and continue rinsing. If symptoms persist, consult a doctor.
- **After swallowing:**
Rinse out mouth with water. Consult a doctor in the event of symptoms following massive accidental ingestion.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed:**

SAFETY DATA SHEET

Per OSHA HCS (29 CFR 1910.1200)

Not applicable

· **Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

Section 5: *Fire-fighting Measures*

- **Extinguishing media**
- **Suitable extinguishing agents:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide
- **For safety reasons unsuitable extinguishing agents :** None
- **Special hazards arising from the substance or mixture:** Carbon oxides, boron oxides
- **Advice for firefighters**
- **Protective equipment:**
Use appropriate protective equipment.
- **Additional information:** No additional information available.

Section 6: *Accidental Release Measures*

- **Personal precautions, protective equipment and emergency procedures**
Limit dust formation, use disposable (P2 min.) dust protection mask.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**
Pick up mechanically.
Dispose contaminated material as waste according to item 13.
- **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*

- **Handling**
- **Precautions for safe handling:**
Prevent formation of dust.
Any deposit of dust which cannot be avoided must be regularly removed. Use only in well ventilated areas.
Avoid breathing dust.
Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Further information about storage conditions**

SAFETY DATA SHEET

Per OSHA HCS (29 CFR 1910.1200)

- **Specific end use(s):** No further relevant information available.

Section 8: *Exposure Controls/Personal Protection*

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** contains no substances with occupational exposure limit values.
- **Additional information**
- **Exposure controls**
- **Personal protective equipment:**



- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed. Keep away from food, beverages and feed. Wash hands before breaks and at the end of work. Avoid contact with eyes. Avoid close or long term contact with skin. Do not inhale dust/smoke/mist.
- **Breathing equipment:** Use suitable respiratory protective device in case of insufficient ventilation. For spills, respiratory protection may be advisable. Use mask with N95, FFP2 or FFP3 filter in case of dust formation.
- **Eye/Face protection:** Wear approved safety goggles
- **Protection of hands:**
Wear gloves for the protection against mechanical hazards according to OSHA and NIOSH rules. Gloves are advised for repeated or prolonged contact.
- **Body protection:**
Not required under normal conditions of use. Protection may be required for spills.

Section 9: *Physical and Chemical Properties*

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

| | |
|---------------|---------------|
| Form: | Granulate |
| Color: | Black or Grey |
- **Odor:** Odorless
- **Solubility in / Miscibility with Water:** Insoluble

SAFETY DATA SHEET

Per OSHA HCS (29 CFR 1910.1200)

| | |
|--------------------------------------|--------------------------------|
| • Specific Gravity: | Value: ~2.51 g/cm ³ |
| • Bulk Density: | No data |
| • Flash Point: | Not applicable |
| • Explosive properties: | Not applicable |
| • Explosion Limit: | Not applicable |
| • Spontaneous combustibility: | Not applicable |
| • Oxidizing properties: | Not applicable |

Section 10: *Stability and Reactivity*

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Stable under normal temperature conditions.
- **Possibility of hazardous reactions:** No data available
- **Conditions to avoid:** Not applicable
- **Incompatible materials:** Strong oxidizing agents
- **Hazardous decomposition products:** Not applicable

Section 11: *Toxicological Information*

- **Information on toxicological effects:**
- **Acute toxicity:** LD50 Oral – rat - > 2,000 mg/kg
- **Irritation:** No harmful effects identified
- **Corrosivity:** No harmful effects identified
- **Sensitisation:** No harmful effects identified
- **Repeated dose toxicity:** No harmful effects identified
- **Carcinogenicity:** No harmful effects identified
- **Mutagenicity:** No harmful effects identified
- **Toxicity for reproduction:** No harmful effects identified

Section 12: *Ecological Information*

- **Toxicity:** No harmful effects identified, based on available data
- **Persistence and degradability:** Chemically inert and insoluble in water; separation by mechanical processes (sedimentation, filtration, etc)
- **Bioaccumulative potential:** No potentials known
- **Mobility in soil:** No environmental problems known
- **Results of PBT and vPvB assessment:** PBT/vPvB assessment not available as chemical safety

SAFETY DATA SHEET

Per OSHA HCS (29 CFR 1910.1200)

assessment not required/conducted

- **Other adverse effects:** NO environmental problems expected if handled in accordance with standard industrial practice

Section 13: *Disposal Considerations*

- **Waste treatment methods**

Contact waste processors for recycling information.

The user of this material has the responsibility to dispose of the unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

- **Recommendation:** Disposal must be made according to official regulations.

Section 14: *Transport Information*

-
- | | |
|---|----------------|
| • UN-Number | |
| • DOT, ADR, ADN, IMDG, IATA: | Not Regulated |
| • UN proper shipping name | |
| • DOT, ADR, ADN, IMDG, IATA: | Not Regulated |
| • Transport hazard class(s) | |
| • DOT, ADR, ADN, IMDG, IATA | |
| • Class: | Not Regulated |
| • Packing group | |
| • DOT, ADR, IMDG, IATA: | Not Regulated |
| • Environmental hazards | |
| • Marine pollutant: | No |
| • Special precautions for user: | Not applicable |
| • Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: | Not applicable |
| • UN "Model Regulation" | |

Section 15: *Regulatory Information*

SAFETY DATA SHEET

Per OSHA HCS (29 CFR 1910.1200)

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **SARA 302 Components:**
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
- **SARA 313 Components:**
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
- **SARA 311/312 Hazards:**
No SARA Hazards
- **Massachusetts Right To Know Components:**
No components are subject to the Massachusetts Right to Know Act.
- **Pennsylvania Right To Know Components:**
Boron carbide CAS-No. 12069-32-8
- **New Jersey Right To Know Components:**
Boron carbide CAS-No. 12069-32-8
- **California Prop. 65 Components:**
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.
- **United States (USA):**
This product is not a "hazardous chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Section 16: *Other Information*

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Date of preparation / last revision:** 10/03/18