

Heeger Materials Inc.  
Safety Data Sheet  
Chromium Boride

---

1. Product and Company Identification

---

Trade Name: Chromium boride  
Chemical Formula: CrB<sub>2</sub>  
Recommended Use: Scientific research and development

Manufacturer/Supplier: Heeger Materials Inc.  
Street: 230 Steele St  
City: Denver  
State: CO  
Zip Code: 80206  
Country: USA  
Tel #: 925-385-8104

24-Hour Emergency Contact: 800-424-9300 (US & Canada)  
+1-703-527-3887 (International)

---

2. Hazards Identification

---

Signal Word: None  
Hazard Statements: None  
Precautionary Statements: None

HMIS Health Ratings (0-4):  
Health: 1  
Flammability: 0  
Physical: 0

---

3. Composition

---

Chemical Family: Ceramic Additional Names:  
Chromium diboride

Chromium boride (CrB<sub>2</sub>):  
Percentage: 0-100 wt% CAS #: 12007-16-8  
EC #: 234-499-3

---

4. First Aid Procedures

---

General Treatment: Seek medical attention if symptoms persist.  
Special Treatment: None  
Important Symptoms: None

Inhalation: Remove victim to fresh air. Supply oxygen if breathing is difficult.  
Ingestion: Seek Medical Attention.  
Skin: Wash affected area with mild soap and water. Remove any contaminated clothing.

---

Eyes:	Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
	5. Firefighting Measures
Flammability:	Non-flammable
Extinguishing Media:	No special restrictions – use suitable extinguishing agent for surrounding material and type of fire.
Spec. Fire Fighting Procedure:	Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

---

#### 6. Accidental Release Measures

---

If Material Is Released/Spilled:	Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.
Environmental Precautions:	Isolate runoff to prevent environmental pollution.

---

#### 7. Handling and Storage

---

Handling Conditions:	Wash thoroughly after handling.
Storage Conditions:	Store in a cool dry place in a tightly sealed container. Store apart from materials and conditions listed in section 10.
Work/Hygienic Maintenance:	Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.
Ventilation:	Provide sufficient ventilation to maintain concentration at or below threshold limit.

---

#### 8. Exposure Controls and Personal Protection

---

Permissible Exposure Limits:	0.5 mg/m <sup>3</sup> as Cr, long-term value
Threshold Limit Value:	0.5 mg/m <sup>3</sup> as Cr, long-term value
Special Equipment:	None
Respiratory Protection:	Dust Respirator
Protective Gloves:	Rubber gloves
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

---

#### 9. Physical and Chemical Characteristics

---

Color	Grey
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	Insoluble
Boiling Point:	N/A
Melting Point:	N/A

---

---

Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	N/A
Molecular weight:	N/A

#### 10. Reactivity

Stability:	Stable under recommended storage conditions
Reacts With:	Oxidizing agents
Incompatible Conditions:	None Hazardous Decomposition
Products:	Toxic metal oxide fume

---

#### 11. Toxicological Information

---

##### Potential Health Effects:

Eyes:	May cause irritation
Skin:	May cause irritation
Ingestion:	May cause irritation
Inhalation:	May cause irritation

Chronic: Chromium powder, chromium (II) and chromium (III) compounds may cause nausea, diarrhea, vomiting, skin and eye irritation and pneumoconiosis. Although less likely than Cr (VI) compounds, the NTP considers all chromium to be potentially carcinogenic. Boron affects the central nervous system. Boron poisoning causes depression of the circulation, persistent vomiting and diarrhea, followed by profound shock and coma. The temperature may become subnormal and a scarletina form rash may cover the entire body

Signs & Symptoms: N/A Aggravated Medical Conditions:  
N/A

Sec 302 Extremely Hazardous:	No
Sec 304 Reportable Quantities:	N/A

---

---

Sec 313 Toxic Chemicals: Yes Median Lethal Dose: N/A

Carcinogen: N/A

---

#### 12. Ecological Information

---

Aquatic Toxicity: Low  
Persistent Bioaccumulation Toxicity: No  
Very Persistent, Very Bioaccumulative: No Notes:  
N/A

---

#### 13. Disposal Considerations

---

Dispose of in accordance with local, state, national, and international regulations.

---

#### 14. Transportation Data

---

Hazardous: Not hazardous for transportation.  
Hazard Class: N/A  
Packing Group: N/A  
UN Number: N/A  
Proper Shipping Name: N/A

---

#### 15. Regulatory Information

---

#### 16. Other Information

---

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

Document Last Revised: 07/08/2015