



# Barnes Environmental International

A division of Stake Technology Ltd.

407 Parkside Drive, Box 260, Waterdown, Ontario L0R 2H0  
Tel: (905) 689-6661 Toll Free: (888) 689-6661 Fax: (905) 689-0485  
info@bei.ca OR info@barnesenvironmental.com

## MATERIAL SAFETY DATA SHEET

### PRODUCT

**NAME:** *Chromite Sand*

Chemical Name  
and Synonyms:

**MSDS No:** 302-1

**WHMIS CLASS:** D2A

**DATE:** May 18, 1999

### MANUFACTURER

**and SUPPLIER:** *BARNES ENVIRONMENTAL INC.*

407 Parkside Drive  
Waterdown, Ontario  
L0R 2H0

**Telephone:** 905-689-6661 **Emergency:** 905-689-6661, Ext. 222

### MATERIAL IDENTIFICATION AND USE

*This product is used in a variety of foundry, refractory and steel manufacture applications.*

### PHYSICAL DATA

<b>Melting Point:</b>	3350 - 4000°F	<b>Specific Gravity H<sub>2</sub>O = 1:</b>	4.3 - 4.5
<b>Solubility in Water:</b>	Negligible		
<b>Appearance and Odour:</b>	<i>Shiny, black spheres, no appreciable odour.</i>		
<b>Ingredients by Weight (%):</b>	Cr <sub>2</sub> O <sub>3</sub>	~ 46.0	
	Fe <sub>2</sub> O <sub>3</sub>	~ 27.0	
	Al <sub>2</sub> O <sub>3</sub>	~ 15.0	
	MgO	~ 10.0	
	SiO <sub>2</sub> (total)	~ 1.0	
	LOI	~ 0.15	

### HAZARDOUS INGREDIENTS

<u>Ingredients</u>	<u>C.A.S. No.</u>	<u>TLV (Units)</u>
SiO <sub>2</sub> (Quartz)	14808-60-7	0.1%

### FIRE AND EXPLOSION HAZARD DATA

*The product will not burn or explode.*

### REACTIVITY DATA

*The product is stable and non-reactive under normal conditions.*

### TOXICOLOGICAL PROPERTIES

*This product contains a small amount of crystalline silica which may cause delayed respiratory disorder if inhaled over a prolonged period of time due to nuisance dusts. Avoid breathing dust. Use NIOSH approved respirator where TLV for crystalline silica is exceeded.*

### PREVENTATIVE MEASURES

*Use gloves and safety glasses as normal procedures to protect from abrasive products. Leaks or spills may be shoveled or swept up. Avoid unnecessary dusting while sweeping. If airborne concentration of nuisance dust or silica dust exceed exposure limits, use of approved respiratory protection is necessary. Waste disposal should be in accordance with your local environmental regulations.*

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**FIRST AID MEASURES**

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- For skin exposures, wash with soap and water. Seek medical advice if irritation persists.
- For eye exposure, flush with water and seek medical advice if irritation persists.
- For ingestion, seek immediate medical aid.
- For inhalation, remove to fresh air. If breathing difficulty is encountered, seek medical aid.

**PREPARATION INFORMATION OF MSDS**

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*This MSDS was prepared from information provided by raw material suppliers to Barnes Environmental Inc.*

**Contacts:** Michael Austin  
Matthew Randall  
Peter Graham

*For non-emergency questions, please contact your sales person.  
General enquiries may be directed to 905-689-6661.*



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## TECHNICAL DATA SHEET

### Chromite Sand

#### Typical Chemical Analysis:

Chromium Oxide	Cr <sub>2</sub> O <sub>3</sub>	46.21%
Iron Oxide	Fe <sub>2</sub> O <sub>3</sub>	27.20%
Aluminum Oxide	Al <sub>2</sub> O <sub>3</sub>	14.80%
Magnesium Oxide	MgO	10.00%
Silicon Dioxide	SiO <sub>2</sub> (total)	0.95%
Titanium Oxide	TiO <sub>2</sub>	0.67%
Manganese Oxide	MnO	0.23%
Calcium Oxide	CaO	0.22%
Phosphorus Pentoxide	P <sub>2</sub> O <sub>5</sub>	0.05%
Sodium Oxide	Na <sub>2</sub> O	0.03%
Potassium Oxide	K <sub>2</sub> O	0.02%
Loss On Ignition LOI		0.15%

**Colour:** Shiny, black particles  
**Specific Gravity:** 4.3 – 4.5  
**Solubility:** Negligible

**Melting Point:** 3350 - 4000°F  
**Grain Shape:** Rounded

#### Typical Screen Analysis:

<u>U.S. Mesh</u>	<u>% Retained</u>
20 Mesh	0.6
30 Mesh	3.3
40 Mesh	16.2
50 Mesh	28.3
70 Mesh	27.2
100 Mesh	16.6
140 Mesh	6.3
200 Mesh	1.4
270 Mesh	0.1
Pan	Trace
<b>GFN</b>	<b>50.6</b>

