Safety Data Sheet
Black Blast
© TCC Materials
Version 4.1

TCC Materials
2025 Centre Point Boulevard, Suite 300
Mendota Heights, MN 55120-1221

Emergency Telephone Number: 651-688-9116
Information Telephone Number: 651-905-8137

Revision Date: Jan. 2017

Section 1: Product Identification

Product Type: Coal Slag Blasting Abrasive

TCC Product Name: Black Blast

Section 2: Hazard Identification

Classification in accordance with 29 CFR 1910.1200
Acute Toxicity (Oral), Category 4 (20% unknown)
Skin Corrosion / Irritation, Category 3
Eye Damage / Irritation, Category 2A
Carcinogenicity, Category 2
Specific Target Organ Toxicity - Single Exposure, Category 2 (respiratory system)
Specific Target Organ Toxicity - Single Exposure, Category 2 (digestive system and/or systemic toxicity)
Specific Target Organ Toxicity - Repeated Exposure, Category 2 (respiratory system, lungs)

GHS LABEL ELEMENTS
Symbol(s)

Signal Word
WARNING

Hazard Statement(s)
Harmful if swallowed.
Can cause skin irritation.
May cause damage to respiratory system, lungs through prolonged or repeated exposure.
Precautionary Statement(s)
Prevention
Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/clothing and eye/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

Response
IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
IF IN EYES:  Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth

Storage
Store locked up. Store in a secure, controlled area

Disposal
Dispose in accordance with all applicable regulations.

### Section 3: Hazardous Ingredients/Composition

<table>
<thead>
<tr>
<th>Component</th>
<th>Percent %</th>
<th>CAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amorphous Silicon Dioxide</td>
<td>48-50</td>
<td>7631-86-9</td>
</tr>
<tr>
<td>Aluminum oxide</td>
<td>18-22</td>
<td>1344-28-1</td>
</tr>
<tr>
<td>Iron oxide (Fe203)</td>
<td>18-22</td>
<td>1309-37-1</td>
</tr>
<tr>
<td>Calcium Oxide</td>
<td>5-7</td>
<td>1305-78-8</td>
</tr>
<tr>
<td>Potassium Oxide</td>
<td>1-2</td>
<td>12136-45-7</td>
</tr>
<tr>
<td>Titanium Oxide</td>
<td>0-1</td>
<td>13463-67-7</td>
</tr>
<tr>
<td>Magnesium Oxide</td>
<td>0-1</td>
<td>1309-48-4</td>
</tr>
<tr>
<td>Sodium Oxide</td>
<td>0-1</td>
<td>1313-59-3</td>
</tr>
<tr>
<td>Quartz</td>
<td>0-0.1</td>
<td>14808-60-7</td>
</tr>
<tr>
<td>Cristobalite</td>
<td>0-0.1</td>
<td>14464-46-1</td>
</tr>
<tr>
<td>Beryllium</td>
<td>0-0.0005</td>
<td>7440-41-7</td>
</tr>
</tbody>
</table>

Others
Evidence may exist to indicate that components present in this material in concentrations of less than one percent (or in the case of carcinogens, less than 0.1 percent) could be released in concentrations which would exceed an established OSHA permissible exposure limit or ACGIH Threshold Limit Value, or could present a health risk to employees in those concentrations.

Employee exposure monitoring should be performed to determine exposure levels.
Section 4: First Aid Measures

Description of Necessary Measures

Inhalation:
If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

Eye contact:
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Do not rub eyes. Continue rinsing. Then get immediate medical attention.

Skin Contact:
If adverse effects occur, wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed.

Ingestion:
If a large amount is swallowed, get immediate medical attention. Rinse mouth.

Most Important Symptoms/Effects

Acute
Respiratory tract irritation, skin irritation, eye irritation.

Delayed
Respiratory system damage, lung damage.

Section 5: Fire Fighting Measures

Suitable Extinguishing Media
Use extinguishing agents appropriate for surrounding fire.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Negligible fire hazard.

Hazardous combustion products
None known.

Fire Fighting Measures
Use extinguishing agents appropriate for surrounding fire. Stay upwind and keep out of low areas. Avoid inhalation of material or combustion by-products.
Special Protective Equipment and Precautions for Firefighters
Wear full protective firefighting gear including self-contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures
Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment.

Methods and Materials for Containment and Cleaning Up
Collect spilled material in appropriate container for disposal. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). If sweeping of a contaminated area is necessary, use a dust suppressant agent. Move containers away from spill to a safe area. Wet down area with water.

Section 7: Handling and Storage

Precautions for Safe Handling
Wash thoroughly after handling. Do not breathe dust. Do not eat, drink or smoke when using this product. Wear protective gloves/clothing and eye/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

Conditions for Safe Storage, including any Incompatibilities
Store and handle in accordance with all current regulations and standards. Protect from physical damage.

Section 8: Exposure Controls/Personal Protection

Occupational Exposure Limits:

<table>
<thead>
<tr>
<th></th>
<th>OSHA (US)</th>
<th>OSHA Mexico*</th>
<th>ACGIH</th>
<th>NIOSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron oxide</td>
<td>10 mg/m³ TWA (fume)</td>
<td>5 mg/m³ TWA</td>
<td>5 mg/m³ TWA (respirable</td>
<td>5 mg/m³ TWA (as Fe, dust</td>
</tr>
<tr>
<td>(Fe₂O₃)</td>
<td>15 mg/m³ (total dust)</td>
<td>LMPE-PPT</td>
<td>factor)</td>
<td>and fume)</td>
</tr>
<tr>
<td>(1309-37-1)</td>
<td>5 mg/m³ TWA (respirable</td>
<td>10 mg/m³ STEL</td>
<td>2500 mg/m³</td>
<td>3000 mg/m³</td>
</tr>
<tr>
<td></td>
<td>fraction)</td>
<td>[LMPE-CT] (as Fe)</td>
<td>IDLH (as Fe, dust and fume)</td>
<td></td>
</tr>
<tr>
<td>Silicon Dioxide</td>
<td>20 mppcf TWA; (80)/(%SiO₂</td>
<td>6 mg/m³ TWA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(7631-86-9)</td>
<td>mg/m³ TWA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substance</td>
<td>TWA Concentration</td>
<td>TWA LMPE-PPT</td>
<td>TWA Concentration</td>
<td>TWA LMPE-PPT</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------</td>
<td>-------------</td>
<td>-------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Calcium oxide (1305-78-8)</td>
<td>5 mg/m³</td>
<td>2 mg/m³</td>
<td>2 mg/m³</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>Aluminum oxide (1344-28-1)</td>
<td>15 mg/m³ (total dust)</td>
<td>10 mg/m³ (respirable fraction)</td>
<td>5 mg/m³</td>
<td>25 mg/m³ IDLH</td>
</tr>
</tbody>
</table>

**Appropriate Engineering Controls**
Provide local exhaust or process enclosure ventilation system. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

**Individual Protection Measures, such as Personal Protective Equipment**

**Respiratory protection**
Where dust or vapor concentration exceeds or is likely to exceed applicable exposure limits, a NIOSH approved respirator is required.

**Skin protection**
Wear appropriate chemical resistant clothing.

**Glove Recommendations**
Wear appropriate chemical resistant gloves.

**Eye/Face protection**
Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

---

**Section 9: Physical and Chemical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Coarse Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Black shiny solid</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
<tr>
<td>Physical Form</td>
<td>Solid</td>
</tr>
<tr>
<td>Odor</td>
<td>No characteristic odor</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>Not Available</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not Available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not Available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Non-Flammable, Non-Explosive</td>
</tr>
<tr>
<td>Decomposition</td>
<td>Not Available</td>
</tr>
</tbody>
</table>
Evaporation Rate: Not Available
OSHA Flammability Class: Non-Flammable
LEL: Not Available
UEL: Not Available
Vapor Pressure: Not Applicable
Vapor Density (air = 1): Not Applicable
Density: Not Available
Specific Gravity (water = 1): Not Available
Water Solubility: Marginal
Log KOW: Not Available
Coeff. Water/Oil Dist: Not Available
Viscosity: Not Available

Other Property Information
No additional information is available.

Section 10: Stability and Reactivity

Reactivity
No reactivity hazard is expected.

Chemical Stability
Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions
Will not polymerize.

Conditions to Avoid
Avoid accumulation of airborne dusts.

Incompatible Materials
none

Hazardous Decomposition
Combustion: miscellaneous decomposition products.

Section 11: Toxicological Information

Acute and Chronic Toxicity
Component Analysis - LD50/LC50
The components of this material have been reviewed in various sources and the following endpoints are published:
- Iron oxide (Fe2O3) (1309-37-1)
  Oral LD50 Rat >10000 mg/kg
- Silicon Dioxide (7631-86-9)
  Oral LD50 Rat >5000 mg/kg; Dermal LD50 Rabbit >2000 mg/kg
- Calcium oxide (1305-78-8)
  Oral LD50 Rat 500 mg/kg
Aluminum oxide (1344-28-1)
Oral LD50 Rat >5000 mg/kg

Information on Likely Routes of Exposure
Inhalation
Throat irritation, difficulty breathing.
Ingestion
Diarrhea, stomach pain, difficulty breathing
Skin Contact
Skin irritant
Eye Contact
Eye irritant
Immediate Effects
Eye and Skin Irritant, Shortness of Breath
Delayed Effects
Respiratory system damage
Medical Conditions Aggravated by Exposure
Respiratory disorders, eye disorders, skin disorders
Irritation/Corrosivity Data
Respiratory tract irritant, skin irritant, eye irritant
Local Effects
Calcium oxide (1305-78-8)
Corrosive: inhalation, skin, eye, ingestion
Respiratory Sensitization
No data available.
Dermal Sensitization
No data available.
Carcinogenicity
Available data characterizes components of this product as possible carcinogen hazards.
Component Carcinogenicity
Iron oxide (Fe2O3) (1309-37-1)
ACGIH: A4 - Not Classifiable as a Human Carcinogen
IARC: Supplement 7 [1987]; Monograph 1 [1972] (Group 3 (not classifiable)).
DFG: Category 3B (could be carcinogenic for man, with the exception of non-bioavailable ferrous oxides).
Silicon Dioxide (7631-86-9)
IARC: Monograph 68 [1997]; Supplement 7 [1987] (Group 3 (not classifiable))
Aluminum oxide (1344-28-1)
DFG: Category 2 (considered to be carcinogenic for man, fiber dust)
Mutagenic Data
No data available.

Reproductive Effects Data
Not data available.

Tumorigenic Data
No data available.

Specific Target Organ Toxicity – Single Exposure
Respiratory system, digestive system

Specific Target Organ Toxicity – Repeated Exposure
Respiratory system, lungs

Aspiration Hazard
No data available.

---

**Section 12: Ecological Information**

Ecotoxicity

Component Analysis – Aquatic Toxicity

**Silicon Dioxide (7631-86-9)**
- **Fish**: 96 Hr LC50 Brachydanio rerio: 5000 mg/L [static]
- **Algae**: 72 Hr EC50 Pseudokirchneriella subcapitata: 440 mg/L
- **Invertabrate**: 48 Hr EC50 Ceriodaphnia dubia: 7600 mg/L

**Calcium oxide (1305-78-8)**
- **Fish**: 96 Hr LC50 Cyprinus carpio: 1070 mg/L [static]

Persistence and Degradability
No information available for the product.

Bioaccumulative Potential
No information available for the product.

Mobility
No information available for the product.

---

**Section 13: Disposal Considerations**

Disposal Methods
Dispose of in accordance with federal, state, and local regulations.

---

**Section 14: Transportation**

**US DOT Information**
Shipping Name: Not Regulated

**IMDG Information**
Shipping Name: Not Regulated
Section 15: Regulatory Information

Component Analysis
U.S. Federal Regulations
This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372-65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require OSHA process safety plan.

Aluminum oxide (1344-28-1)
SARA 313: 1.0 % de minimis concentration (fibrous forms)

SARA 311/312 Hazardous Categories

Acute Health: Yes  Chronic Health: Yes  Fire: No  Pressure: No  Reactive: No

U.S. State Regulations
The following components appear on one or more of the following state hazardous substances lists:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron oxide (Fe2O3)</td>
<td>1309-37-1</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Silicon Dioxide</td>
<td>7631-86-9</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Calcium oxide</td>
<td>1305-78-8</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Aluminum oxide</td>
<td>1344-28-1</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Titanium oxide</td>
<td>7440-66-6</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Potassium oxide</td>
<td>12136-45-7</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Magnesium oxide</td>
<td>1309-48-4</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Iron oxide (Fe2O3)</td>
<td>1313-59-3</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Component Analysis - Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>US</th>
<th>CA</th>
<th>EU</th>
<th>AU</th>
<th>PH</th>
<th>JP</th>
<th>KR</th>
<th>CN</th>
<th>NZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron oxide (Fe2O3)</td>
<td>1309-37-1</td>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Silicon Dioxide</td>
<td>7631-86-9</td>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Calcium oxide</td>
<td>1305-78-8</td>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Aluminum oxide</td>
<td>1344-28-1</td>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Titanium oxide</td>
<td>7440-66-6</td>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Potassium oxide</td>
<td>12136-45-7</td>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Magnesium oxide</td>
<td>1309-48-4</td>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Sodium oxide</td>
<td>1313-59-3</td>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Key / Legend
ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Section 16: Other Information

Additional information on the products is available at. www.tccmaterials.com

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user’s responsibility to satisfy oneself as to the suitability and completeness of this information for the user’s own particular use.