SECTION I. PRODUCT IDENTIFICATION

Product Name: Black Magic®  
Product Type: Abrasive Blasting Media  
Product Source: Slag from coal combustion  
Chemical Family: Amorphous Glassy Slag  
DOT Shipping Name: Non-regulated Material

DOT Hazard Class: Non-regulated Material  
Date SDS Prepared: June 2015  
Date Revised: None

SECTION II. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS
Health Hazard: Not Classified  
Physical Hazard: Not Classified  
Environmental: Not Classified

EMERGENCY OVERVIEW: Black Magic® is not flammable, combustible or explosive; and poses no unusual hazard in an unused condition. During use for abrasive blasting, dust may irritate the respiratory tract, skin and eyes; and may cause inflammation and pulmonary fibrosis.

SECTION III. COMPOSITION / INFORMATION ON INGREDIENTS

BLACK MAGIC® is a 99-100% slag product produced from the combustion of coal in the generation of electricity. The material meets the definition of a Type I Inorganic Material under the Military Specification Number MIL-A-22262B(SH), dated February 6, 1987. Typical chemical analysis of the product is:

<table>
<thead>
<tr>
<th>Element</th>
<th>Concentration %</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Silica, Fumed Amorphous</td>
<td>20</td>
</tr>
<tr>
<td>Aluminum</td>
<td>15</td>
</tr>
<tr>
<td>Iron</td>
<td>7</td>
</tr>
<tr>
<td>Calcium</td>
<td>3</td>
</tr>
<tr>
<td>Silica, Crystalline</td>
<td>&lt; 0.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Element</th>
<th>Concentration %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium</td>
<td>2</td>
</tr>
<tr>
<td>Titanium</td>
<td>&lt; 0.2</td>
</tr>
<tr>
<td>Strontium</td>
<td>&lt; 0.2</td>
</tr>
<tr>
<td>Barium</td>
<td>&lt; 0.1</td>
</tr>
<tr>
<td>Beryllium</td>
<td>0.00063</td>
</tr>
</tbody>
</table>

*Contains <0.1 percent crystalline silica and is not a carcinogen.

The Threshold Limit Value (TLV) is 10 mg/m³ (inhalable). The TLV for BLACK MAGIC® is the American Conference of Governmental Industrial Hygienist’s TLV for Particulates Not Otherwise Specified (insoluble or poorly soluble). Partial size analysis of unused BLACK MAGIC® shows no respirable dust fraction.

USER CAUTION!: Normal usage of BLACK MAGIC® as an abrasive blasting media may cause mechanical breakdown of the product with the potential of producing significant amounts of respirable (< 10 micron) dust. The potential for exceeding the TLV and Permissible Exposure Limit (PEL) of a toxic material must be evaluated depending on the nature of the surface treated. For example, using BLACK MAGIC® for abrasive blasting of a surface covered with lead based paint can pose a risk for exceeding the TLV or PEL for lead.
SECTION IV. FIRST AID MEASURES

Eye Contact: Flush with water for at least 15 minutes. If irritation or redness persists, see a physician.

Skin Contact: Wash with soap and water. If irritation persists, see a physician.

Inhalation: Remove to fresh air at once. Apply artificial respiration if having breathing difficulties.

Ingestion: Give one or two glasses of water. If discomfort persists, see a physician.

SECTION V. FIRE FIGHTING MEASURES

BLACK MAGIC® will not burn. It has no flash point, no upper or lower flammable limits, and no autoignition temperature. No special fire fighting procedures are required. BLACK MAGIC® presents no unusual fire or explosion hazard. Since BLACK MAGIC® does not burn, use the appropriate fire extinguishing media for the other materials involved.

SECTION VI. ACCIDENTAL RELEASE MEASURES

Spill Response Procedures: BLACK MAGIC® is classified as non-hazardous. Sweep up spilled material and dispose in a sanitary landfill or industrial disposal site. Avoid generating dust. Wet methods and vacuuming are preferred.

SECTION VII. HANDLING AND STORAGE

General Procedures: Follow Safety Data Sheet and label precautions.

Handling: Limit dust generation. Keep dry.

SECTION VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION

Eye Protection: Usage of BLACK MAGIC® as an abrasive blasting media can present a significant danger to eyes. Safety goggles or full face respirator must be worn.

Skin Protection: Usage of BLACK MAGIC® as an abrasive blasting agent media can be an irritant to the skin. Protective clothing should be worn.

Ventilation: Sufficient local ventilation is recommended whenever possible to reduce worker exposure to below the TLV.

Respiratory Protection: For exposures up to five times the TLV for particulates not otherwise specified, a NIOSH/MSHA approved half face air purifying respirator equipped with P100 filters may be used. For exposure up to fifty times the TLV, a NIOSH/MSHA approved full face respirator equipped with P100 filters may be used. For higher exposures, a type CE airline respirator for abrasive blasting must be used.

SECTION IX. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point(F): > 2000
Specific Gravity (H₂O = 1): 2.855
Solubility in Water: < 0.1%
Percent Volatile by Volume: < 0.1%
Appearance: Black solid, glassy slag
SECTION X. REACTIVITY DATA

BLACK MAGIC® is stable under normal conditions. BLACK MAGIC® does not undergo hazardous polymerization, nor form any hazardous chemical decomposition products. Under normal usage, physical breakdown of BLACK MAGIC® may produce significant respirable (< 10 micron) dust particles. Amorphous silica, a major component of BLACK MAGIC®, is incompatible with hydrofluoric acid.

SECTION XI. TOXICOLOGICAL INFORMATION

Routes Of Entry: Inhalation, ingestion, and skin absorption.

HEALTH HAZARDS:
Acute: Can cause respiratory inflammation resembling pneumonia. Contact with skin that has been scraped or cut may cause rashes or ulcers. Eye irritant from dust or particulates.

Chronic: Inhalation of dust over a long period of time increases the risk of developing lung diseases, including pneumoconiosis.

Symptoms Of Overexposure:
Inhaled: Shortness of breath, coughing, reduced pulmonary function, weight loss, chest pain, fatigue.

Contact with eyes or skin: Irritation, possible skin rashes or ulcers.

Swallowed: Gastro-intestinal discomfort.

Contains suspected cancer agents? yes NIOSH: yes NTP: yes IARC: yes

SECTION XII. ECOLOGICAL INFORMATION

Eco-Toxicological Information: This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Bioaccumulation/Accumulation: This product is not bio-accumulating.

Distribution: Not available.

Aquatic Toxicity: None known.

Chemical Fate Information: Not available.

SECTION XIII. DISPOSAL CONSIDERATIONS

Waste Disposal: Handle as inert material. In the unused form, material may be disposed of as non-hazardous solid waste, in accordance with local, state, and federal regulations.

SECTION XIV. TRANSPORT INFORMATION

Dot Shipping Name: Non-regulated Material.

Dot Hazard Class: Non-regulated Material.
SECTION XV. REGULATORY INFORMATION

WHMIS 2015 Classification: This Safety Data Sheet (SDS) has been prepared to comply with this requirement.

OSHA: This SDS has been prepared to comply with the Hazard Communication Standard, 29 CFR 1910.1200.

SARA: SARA Title III, Section 313, Toxic Chemical. Chemicals identified in Section III are subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and 40 CFR 372.

TSCA: All components of this product are listed on the Toxic Substance Control Act inventory list.

CALIFORNIA PROPOSITION 65: WARNING - This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

SECTION XVI. OTHER INFORMATION

Prepared By: Mark C. Mummert, Ph.D., PE, CIH (#8415 CP)

HMIS CODING: HEALTH: 1    FIRE: 0    REACTIVITY: 0    PPE: B

DISCLAIMER: All data or information regarding the product contained in this Safety Data Sheet (SDS) is offered by the manufacturer in good faith as accurate, but is furnished without guaranty. While the information contained in the SDS is based upon research and analysis, ABRASIVES INC makes no representation as to the accuracy of the information in this SDS.

The conditions of the use of this product, and the suitability of the product for your particular application, are beyond the control of ABRASIVES INC. All risks of the use of the product are therefore assumed by you, the user. It is also your responsibility to pass on to your employees and/or customers the information contained in this SDS, and give them appropriate warnings and safe handling instructions as necessary to make the product safe for its intended uses.