SECTION 1 -- PRODUCT IDENTIFICATION

IDENTITY (Trade Name): Vitrified Silicon carbide abrasive

SYNONYMS: Abrasive stone, bonded silicon carbide, dressing stick, glass stone, mold stone, polishing stone, & roughout stone.

FAMILY/CHEMICAL NAME: Carbide

PRODUCT USE: Mold and die polishing, grinding, tool sharpening, dressing of grinding and cutting wheels. Vitrified silicon carbide abrasives break down during use. The resulting dust is classified by OSHA as inert or nuisance dust. Data provided pertains primarily to the dust produced during and after use.

MANUFACTURER/SUPPLIER: BORIDE Engineered Abrasives
2615 Aero Park Dr.
Traverse City MI 49686-9101

ORIGINAL ISSUE DATE: May 22, 2015

TELEPHONE NUMBER: (231) 929-2121

24-HOUR EMERGENCY NUMBER: (231) 922-1959

SECTION 2 – HAZARDS IDENTIFICATION

PRIMARY ROUTES OF EXPOSURE: During or after use, the dust resulting from product breakdown may be inhaled or come in contact with skin or eyes.

POTENTIAL HEALTH EFFECTS:

ACUTE: Eyes: Dust can cause irritation, redness and eye watering.
Skin: No skin absorption hazard. May cause rash from mechanical irritation.
Inhalation (Breathing): Nuisance dust may cause coughing or sneezing.
Ingestion (Swallowing): Abrasive particles may cause irritation.

CHRONIC: Prolonged inhalation of inert dust can cause respiratory distress.

MEDICAL CONDITION AGGRAVATED BY EXPOSURE: Nuisance dust may aggravate pre-existing pulmonary conditions.

NFPA RATINGS: Health: 0; Flammability: 0; Reactivity: 0
SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS #</th>
<th>WEIGHT %</th>
<th>PEL</th>
<th>EC#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon Carbide</td>
<td>409-21-2</td>
<td>60 – 95%</td>
<td>15mg/m³</td>
<td>206-991-8</td>
</tr>
<tr>
<td>Frit/clay bond</td>
<td>65997-18-4</td>
<td>5 - 40%</td>
<td>15 mg/m³</td>
<td>NA</td>
</tr>
</tbody>
</table>

SECTION 4 – FIRST AID MEASURES

EYES: Flush eyes with water for 15 minutes lifting upper and lower lids occasionally. Seek medical attention if irritation or pain persists.

SKIN: Thoroughly wash affected area with soap and water and isolate from exposure. If irritation or rash persists, seek medical attention.

INHALATION: If symptoms of pulmonary involvement develop (coughing, sneezing, shortness of breath) remove from exposure. If condition persists seek medical attention.

OTHER HEALTH RISKS: Grinding may create sound and vibration levels that could effect hearing and aggravate circulatory problems in the hands. Obtain medical evaluation and use proper protection.

SECTION 5 – FIREFIGHTING MEASURES

FLASH POINT: Non-flammable.

FLAMMABLE LIMITS IN AIR: Not Known.

AUTOIGNITION TEMPERATURE: Not applicable.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None.

FIRE FIGHTING PROCEDURES: Not applicable.

EXTINGUISHING MEDIA: Not applicable.

HAZARDOUS COMBUSTION PRODUCTS: None.
SECTION 6 – ACCIDENTAL RELEASE MEASURES

SPILL PROCEDURES: Sweep or shovel dust into closable container for disposal. Use a vacuum or wet clean-up for dust.

METHODS FOR CONTAINMENT: Containment is not necessary.

SECTION 7 – HANDLING AND STORAGE

HANDLING: If use conditions generate airborne dust, use in well-ventilated area and avoid breathing dust. Dust should be removed by washing or vacuuming.

STORAGE: Do not expose to extreme temperatures, humidity, water or solvents.

PERSONAL HYGIENE: Use good personal hygiene. Wash hands before eating, drinking or smoking. Do not shake clothing, rags or other items to remove dust.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS #</th>
<th>WEIGHT %</th>
<th>PEL</th>
<th>Hazardous Ingredient (YES/NO)</th>
</tr>
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</table>

PRECAUTIONS FOR SAFE USE AND HANDLING

HANDLING PRECAUTIONS: Inspect all products for physical defects before using.

CONTROL MEASURES

EYE PROTECTION: Goggles or safety glasses with side shields are recommended when grinding.

PROTECTIVE GLOVES: Recommended but not required.


ENGINEERING CONTROLS: Provide process enclosure or local ventilation needed to maintain dust below applicable exposure limits.

OTHER PROTECTIVE EQUIPMENT: Hearing protection may be required. See OSHA 29CFR 1910.95 for noise level statutory limits and hearing protection requirements.
SECTION 9 -- PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE, APPEARANCE, and ODOR: Solid; green, gray or black colored. No odor.

ODOR THRESHOLD: Not applicable. SPECIFIC GRAVITY: Approximately 3.2

VAPOR DENSITY: Not applicable. BOILING POINT: Not applicable.

VAPOR PRESSURE: Not applicable. FREEZING POINT: Not applicable.

EVAPORATION RATE: Not applicable. PH: Not applicable.

SOLUBILITY IN WATER: Not applicable. MOLECULAR WEIGHT: Not applicable.

VOLATILE ORGANIC COMPOUNDS: No.

SECTION 10 – STABILITY AND REACTIVITY

STABILITY: Stable, not reactive with water.

INCOMPATIBILITY (material & conditions to avoid): None known.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

SECTION 11 – TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: None known.
CARCINOGENS: Not a carcinogen.
RTECS Number: VWO450000 (silicon carbide)
INGESTION: Not hazardous.
INHALATION: No LD50/LC50 information found relating to normal routes of occupational exposure.

SECTION 12 – ECOLOGICAL INFORMATION

ECOTOXICITY: No information available.
PERSISTENCE AND DEGRADABILITY: No information available.
MOBILITY IN SOIL: No information available.
SECTION 13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS: Dispose in accordance with federal, state, provincial and local regulations.

SECTION 14 – TRANSPORTATION INFORMATION

DOT

PROPER SHIPPING NAME: None.
HAZARD CLASS: None.
ID NUMBER: None

Packaging Group: None.
ER Guidebook #: None.

IATA Shipping Name: Not regulated as dangerous goods.

IMO Shipping Name: Not regulated as dangerous goods.

SECTION 15 – REGULATORY INFORMATION

TSCA Inventory Status: Listed

ECHA REACH Candidate List: Not listed

EINECS Number: Not listed.

EC Number: 206-991-8 (silicon carbide)

SARA TITLE III: Product does not contain toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCE LIST: Not listed
SECTION 313 TOXIC CHEMICALS LIST: Not listed

FEDERAL RCRA HAZARDOUS WASTE: Not listed

REPORTABLE QUANTITY (RQ), UNDER U.S.: Not listed

SECTION 16 – ADDITIONAL INFORMATION

SDS creation date: May 22, 2015
SDS revision date: May 22, 2015

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