SAFETY DATA SHEET

Date: June 2015

Section #1: PRODUCT AND COMPANY IDENTIFICATION

Lapmaster Wolters, LLC
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Telephone: (224) 659-7101 (Office Hours 8:00 a.m. to 5:30 p.m. CST)
24-Hour Emergency Number: Chemtrec – 1-800-424-9300

Product Identification: Abrasive Powder
Product Name: Black Silicon Carbide Abrasive Powder
Product Use: Silicon Carbide Abrasive Powder for Component Lapping

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture
Classification (GHS-US)
Comb. Dust

2.2. Label Elements
GHS-US Labeling
Signal Word (GHS-US): Warning
Hazard Statements (GHS-US): Comb. Dust - May form combustible dust concentrations in air

2.3. Other Hazards
Other Hazards Not Contributing to the Classification: Contact with particles may cause mechanical irritation of the skin with itching, redness, swelling, or rash; or irritation of the eyes with tearing, pain, or blurring of vision. Inhalation of dried-down material may cause irritation of the upper respiratory passages.

2.4. Unknown Acute Toxicity (GHS-US): Not applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance: Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon carbide</td>
<td>(CAS No) 409-21-2</td>
<td>97 - 100</td>
<td>Not classified</td>
</tr>
<tr>
<td>Graphite</td>
<td>(CAS No) 7782-42-5</td>
<td>0 - 3</td>
<td>Comb. Dust</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures
First-aid Measures General: If you feel unwell, seek medical advice (show the label where possible).
First-aid Measures After Inhalation: Go into open air and ventilate suspected area. If you feel unwell, seek medical advice.
First-aid Measures After Skin Contact: The compound is not likely to be hazardous by skin contact, but cleansing the skin after use is advisable. Do not rub; the dust is abrasive and may cause mechanical irritation.
First-aid Measures After Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Obtain medical attention.
First-aid Measures After Ingestion: Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/Injuries After Inhalation: Dust from this product may cause irritation to the respiratory tract.
Symptoms/Injuries After Skin Contact: Prolonged contact with large amounts of dust may cause mechanical irritation.
Symptoms/Injuries After Eye Contact: Dust may cause eye irritation.
Symptoms/Injuries After Ingestion: May be harmful if swallowed.
SILICON CARBIDE POWDER
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Chronic Symptoms: Long term exposure to graphite dust (a component of this product) may cause Pneumoconiosis (black lung disease), which causes shortness of breath that gets progressively worse and may result in lung damage.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed
If exposed or concerned, get medical advice and attention.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media
Suitable Extinguishing Media: Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).

5.2. Special Hazards Arising From the Substance or Mixture
Fire Hazard: Not considered flammable but may burn at high temperatures. Emits toxic fumes under fire conditions.
Explosion Hazard: Product itself is not explosive but if dust is generated, dust clouds suspended in air can be explosive.

5.3. Advice for Firefighters
Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures
General Measures: Do not breathe dust. Avoid contact with eyes, skin, clothing. Avoid generating dust. Keep away from open flames, hot surfaces and sources of ignition. No smoking.

6.1.1. For Non-emergency Personnel
Protective Equipment: Use appropriate personal protection equipment (PPE).

6.1.2. For Emergency Responders
Protective Equipment: Equip cleanup crew with proper protection.
Emergency Procedures: Ventilate area. If possible, stop flow of product.

6.2. Environmental Precautions
No additional information available

6.3. Methods and Material for Containment and Cleaning Up
Methods for Cleaning Up: Avoid generation of dust during clean-up of spills. Use only non-sparking tools.

6.4. Reference to Other Sections
See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling
Additional Hazards When Processed: Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

7.2. Conditions for Safe Storage, Including Any Incompatibilities
Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

7.3. Specific End Use(s) Lapping/Grinding/Polishing

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

<table>
<thead>
<tr>
<th></th>
<th>USA ACGIH ACGIH TWA (mg/m³)</th>
<th>USA NIOSH NIOSH REL (TWA) (mg/m³)</th>
<th>USA OSHA OSHA PEL (TWA) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon carbide (409-21-2)</td>
<td>0.1 fibers/cm³ (as determined by the membrane filter method at 400-450X magnification (4-mm objective), using phase-contrast illumination.)</td>
<td>5 mg/m³</td>
<td>5 mg/m³</td>
</tr>
</tbody>
</table>

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<tr>
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<th>USA ACGIH ACGIH TWA (mg/m³)</th>
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<th>USA OSHA OSHA PEL (TWA) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphite (7783-42-5)</td>
<td>2 mg/m³ (all forms except graphite fibers)</td>
<td>2.5 mg/m³ (natural)</td>
<td>1250 mg/m³</td>
<td>5 mg/m³ (synthetic)</td>
</tr>
</tbody>
</table>
8.2. Exposure Controls
Appropriate Engineering Controls: Provide adequate ventilation to minimize dust concentrations. Take precautionary measures against static discharges. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.


Hand Protection: Impermeable protective gloves.
Eye Protection: Chemical goggles or safety glasses.
Skin and Body Protection: Wear suitable protective clothing.
Respiratory Protection: Use NIOSH-approved dust mask if dust has the potential to become airborne.
Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES
9.1. Information on Basic Physical and Chemical Properties
Physical State: Solid
Appearance: Black/Green Granular Material or Powder
Odor: Odorless
Odor Threshold: No data available
pH: No data available
Relative Evaporation Rate (butylacetate=1): No data available
Melting/Freezing Point: No data available
Boiling Point: No data available
Flash Point: No data available
Auto-ignition Temperature: No data available
Decomposition Temperature: No data available
Flammability (solid, gas): No data available
Vapor Pressure: No data available
Relative Vapor Density at 20 °C: No data available
Relative Density: 3.2 (water = 1)
Solubility: Insoluble
Partition coefficient: n-octanol/water: No data available
Viscosity: No data available
Explosive Limits: Not applicable

9.2. Other Information
Particle Size: From 8 to 1200 mesh

SECTION 10: STABILITY AND REACTIVITY
10.1 Reactivity: Product itself is not explosive but if dust is generated, dust clouds suspended in air can be explosive.
10.2 Chemical Stability: The product is stable at normal handling and storage conditions.
10.3 Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
10.4 Conditions to Avoid: Avoid creating or spreading dust. Sparks, heat, open flame and other sources of ignition.
10.6 Hazardous Decomposition Products: Carbon oxides (CO, CO₂). Silicon oxides.

SECTION 11: TOXICOLOGICAL INFORMATION
11.1 Information on Toxicological Effects
Acute Toxicity: Not classified
Skin Corrosion/Irritation: Not classified
Serious Eye Damage/Irritation: Not classified
Respiratory or Skin Sensitization: Not classified
Germ Cell Mutagenicity: Not classified
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Carcinogenicity: Not classified
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): Not classified
Specific Target Organ Toxicity (Repeated Exposure): Not classified
Aspiration Hazard: Not classified
Symptoms/Injuries After Inhalation: Dust from this product may cause irritation to the respiratory tract.
Symptoms/Injuries After Skin Contact: Prolonged contact with large amounts of dust may cause mechanical irritation.
Symptoms/Injuries After Eye Contact: May cause eye irritation.
Symptoms/Injuries After Ingestion: May be harmful if swallowed.
Chronic Symptoms: Long term exposure to graphite dust (a component of this product) may cause Pneumoconiosis (Black lung disease), which causes shortness of breath that gets progressively worse and may result in lung damage.

SECTION 12: ECOLOGICAL INFORMATION
12.1. Toxicity No additional information available
12.2. Persistence and Degradability Not established.
12.3. Bioaccumulative Potential Not established.
12.4. Mobility in Soil No additional information available
12.5. Other Adverse Effects No additional information available

SECTION 13: DISPOSAL CONSIDERATIONS
13.1. Waste treatment methods
Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION
In Accordance With ICAO/IATA/IMDG/DOT
14.1. UN Number Not regulated for transport
14.2. UN Proper Shipping Name Not regulated for transport

SECTION 15: REGULATORY INFORMATION
15.1 US Federal Regulations
Silicon carbide (409-21-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Graphite (7782-42-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2 US State Regulations
Silicon carbide (409-21-2)
U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) List

Graphite (7782-42-5)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Occupational Exposure Limits - Mineral Dusts
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: OTHER INFORMATION
THIS PRODUCT IS CERTIFIED TO BE RoHS COMPLIANT

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