Section 1: Chemical Product and Company Information

Product Name: Epoxy Resin Bond Grinding Wheels
Trade Name: Grinding Wheels
Manufacturer: Pacer Industries, Inc.
200 Red Road
Coatesville, PA 19320

Phone Number: 610-383-4200
Fax Number: 610-383-4239
Effective Date: June 1, 2015

Section 2: Hazards Identification

Inhalation: Grinding generates dust. Prolonged exposure to grinding dust may cause respiratory problems or aggravate existing conditions. Inhalation during grinding can cause coughing and shortness of breath. Consideration should also be given to the airborne concentration of the material being ground.

Eye Contact: Dust generated during grinding may irritate eyes.

Skin Contact: Excessive contact with dust may cause irritation.

Ingestion: No known effects but ingestion is not recommended.

Other: Some grinding operations may cause noise or vibration irritation.

Section 3: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum Oxide</td>
<td>1344-28-1</td>
<td>50-60%</td>
</tr>
<tr>
<td>Silicon Carbide</td>
<td>409-21-2</td>
<td>50-60%</td>
</tr>
<tr>
<td>Cured Epoxy Resin</td>
<td>NA</td>
<td>20-30%</td>
</tr>
<tr>
<td>Curing Agent A</td>
<td>NA</td>
<td>5-10%</td>
</tr>
<tr>
<td>Curing Agent B</td>
<td>NA</td>
<td>5-10%</td>
</tr>
<tr>
<td>Inert Filler</td>
<td>NA</td>
<td>0-5%</td>
</tr>
<tr>
<td>Adhesion Promoter</td>
<td>NA</td>
<td>1-5%</td>
</tr>
<tr>
<td>Potassium Floubrorate</td>
<td>14075-53-7</td>
<td>0-5%</td>
</tr>
</tbody>
</table>

The specific identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.
Section 4: First Aid Measures

Eyes
Remove contact lenses if present and easy to do. Flush eyes thoroughly with large amounts of water, holding eyelids open. Get medical attention if irritation persists.

Skin:
Wash skin with soap and water. Get medical attention if irritation persists.

Ingestion:
Do not induce vomiting. Rinse mouth with water. Seek medical attention if large amount is swallowed or if you feel unwell.

Inhalation:
Move to fresh air. If breathing is difficult, have qualified personnel administer oxygen. Seek medical attention if irritation or other symptoms persist.

Other:
If hearing problems persist, obtain medical assistance.

Section 5: Fire Fighting Measures

Suitable and (unsuitable) extinguishing media:
Use any media appropriate for surrounding fire. Do not use water on fires involving metals dust. Use an appropriate dry powder.

Specific hazards arising from the chemical:
This product is not flammable or combustible; however consideration must be given to the potential fire/explosion hazards from the base material being processed. Some materials create flammable/explosive dust or turnings when machined or ground.

Special protective equipment and precautions for fire-fighters:
Fire fighters should wear full emergency equipment and NIOSH approved positive pressure self-contained breathing apparatus.

Fire and Explosion Hazards:
None from this product.

Section 6: Accidental Release Measures

Personal Precautions, protective equipment and emergency procedures:
Wear appropriate respirator and protective clothing as needed to avoid eye contact and inhalation of dust.

Environmental precautions:
Avoid contamination of water supplies and environmental releases. Report spills as required to authorities.

Methods and materials for containment and cleaning up:
Carefully collect dry material, avoiding the creation of airborne dust. Place a suitable container for disposal.

Section 7: Handling and Storage

Precautions for safe handling:
Do not use at speeds greater than product was made to be used. Inspect wheel for damage on arrival and prior to mounting on machine. Avoid breathing dust. Avoid skin and eye contact with grinding dust. Use in well-ventilated area. Wear suitable gloves, eye protection and appropriate protective clothing according to the operation. Wash thoroughly after handling. Consider potential exposure to components of the base materials or coating being ground. Refer to OSHA’s substance specific standards for additional work practice requirements where applicable.

Conditions for safe storage including any incompatibilities:
Wheels should not be exposed to water or other solvents; any temperature or humidity conditions that causes condensation on the wheels or freezing temperatures. See ANSI B7.1, 2.3.
### Section 8: Exposure Controls / Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum Oxide</td>
<td>15 mg/m³</td>
<td>1 mg/m³</td>
</tr>
<tr>
<td>Silicon Carbide</td>
<td>15 mg/m³</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>Cured Epoxy Resin</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Curing Agent A</td>
<td>6 mg/m³</td>
<td>6 mg/m³</td>
</tr>
<tr>
<td>Curing Agent B</td>
<td>15 mg/m³</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>Inert Filler</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Adhesion Promoter</td>
<td>260 mg/m³</td>
<td>200 ppm</td>
</tr>
<tr>
<td>Potassium Fluoborate</td>
<td>2.5 mg/m³</td>
<td>2.5 mg/m³</td>
</tr>
</tbody>
</table>

Note: Consider also components of base materials and coatings being ground.

**Appropriate engineering controls:** Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

**Respiratory Protection:** Not necessary unless workplace concentrations of hazardous constituents exceed the exposure limits. If the exposure levels are excessive and irritation or other symptoms are experienced, an approved respirator should be worn. Consider the potential for exposure to components of the coatings or base material being ground in selecting proper respiratory protection. Refer to OSHA’s specific standards for lead, cadmium, etc. where appropriate. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134 and ANSI Z88.2 or other applicable regulations and standards and good Industrial Hygiene practice.

**Skin Protection:** Protective gloves recommended to avoid skin abrasion when handling grinding wheels. Wear protective clothing as required to avoid skin contact when handling.

**Eye Protection:** Safety goggles or safety glasses with side shields.

**Hearing Protection:** Hearing protection recommended if operation is noisy.

**Other Precautions:** Visually inspect all wheels before mounting for possible damage. Do not operate above maximum operating speed. Always use a guard. Refer to ANSI B7.1 for the “Safety Requirements for the Use, Care and Protection of Abrasive Wheels.”

### Section 9: Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance:</strong></td>
<td>Grey colored solid wheel</td>
<td><strong>Odor:</strong></td>
<td>No odor</td>
</tr>
<tr>
<td>Odor Threshold:</td>
<td>Not available</td>
<td><strong>pH:</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting/ freezing point:</td>
<td>Not available</td>
<td><strong>Boiling point:</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>Not flammable</td>
<td><strong>Evaporation rate:</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>Not flammable</td>
<td><strong>UEL:</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammable limits: LEL</td>
<td>Not applicable</td>
<td><strong>Vapor Density:</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>Not applicable</td>
<td><strong>Solubility in Water:</strong></td>
<td>Insoluble</td>
</tr>
<tr>
<td>Relative density:</td>
<td>Not available</td>
<td><strong>Auto ignition temperature:</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Partition coefficient:</td>
<td>Not available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n-octanol/water:</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decomposition Temperature:</td>
<td>Not available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Section 10: Stability and Reactivity**

**Stability (Conditions to Avoid):** This is a stable material. Avoid overspeed and unsafe use conditions.

**Incompatibility (Specific Material to Avoid):** Avoid strong acids and bases

**Hazardous Polymerization:** Will not occur.

**Hazardous Decomposition:** Dusts are generated in use. In most cases, dusts from the work piece will be significantly greater than from the grinding wheel. Coolants may produce other decomposition products.

**Section 11: Toxicological information**

**Acute effects of exposure:**

**Inhalation:** Breathing dust may cause irritation to the nose, throat and upper respiratory tract.

**Skin Contact:** May cause abrasive skin irritation

**Eye Contact:** May cause abrasive irritation and injury

**Ingestion:** Not toxic. Swallowing may cause gastrointestinal disturbances or obstruction.

**Chronic Health Effects:** Prolonged inhalation of respirable dust may cause adverse lung effects. Chronic effects may be aggravated by smoking. Prolonged exposure to elevated noise levels during operations may affect hearing. A greater hazard, in most cases, is the exposure to the dust/fumes from the material or paint/coatings being ground. Most of the dust generated during grinding is from the base material being ground and the potential hazard from this exposure must be evaluated.

**Sensitazation:** No data available for the product. Not expected to be a skin sensitizer based on human experience.

**Germ Cell Mutagenicity:** This product is not expected to present a risk of genetic damage

**Reproductive Toxicity:** No specific data is available; however this product is not expected to present a risk of adverse reproductive or developmental toxicity.

**Section 12: Ecological Information**

**Aquatic:** No adverse effect on aquatic organisms are expected. However, consideration must be given to potential environmental effects of the base material being processed.

**Persistence and degradability:** Biodegradation is not applicable to inorganic substances.

**Bioaccumulative potential:** No Data available.

**Mobility in soil:** No data available.

**Other adverse effects:** None known.
Section 13: Disposal Considerations
Dispose of in accordance with local, state and federal regulations. Local regulations may be more stringent than regional and national requirements. It is the responsibility of the waste generator to determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations.

Section 14: Transport Information

<table>
<thead>
<tr>
<th></th>
<th>UN NUMBER</th>
<th>Proper shipping Name</th>
<th>Hazard Class</th>
<th>Packing Group</th>
<th>Environmental Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>None</td>
<td>Not Regulated</td>
<td>None</td>
<td>None</td>
<td>No</td>
</tr>
<tr>
<td>TDG</td>
<td>None</td>
<td>Not Regulated</td>
<td>None</td>
<td>None</td>
<td>No</td>
</tr>
</tbody>
</table>

Transport in bulk (according to Annex II of MARPOL 73/78 and the EBC Code): Not applicable – product is transported only in packaged form.

Special Precautions: None Identified

Section 15: Regulatory Information
Safety, health and environmental regulations specific for the product in question.

Cercla Hazardous Substances (Section 103)/RQ: This product is not subject to CERCLA release reporting. Many states have more stringent spill reporting requirements. Report spills in accordance with all applicable regulations.

SARA Hazard Category (311/312):
- N - Fire Hazard
- N - Sudden Release of Pressure
- N - Reactivity
- N - Acute Health
- N - Chronic Health

EPA SARA 313: This product contains the following chemicals regulated under SARA Title III, Section 313: None

EPA TSCA Inventory: This product meets the definition of an article and is exempt from the TSCA inventory requirements.

Section 16: Other Information

NFPA RATING (FNPA 704) FIRE: 0 HEALTH: 1 INSTABILITY: 0
HMIS RATING FIRE: 0 HEALTH: 1 PHYSICAL HAZARD: 0

Date of Preparation: June 1, 2015

DISCLAIMER

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