SAFETY DATA SHEET

Cut-Off Wheels & Grinding Wheels

SECTION 1 - Identification of the Product and Company

1.1 Product Name
Reinforced Resinoid Bonded Abrasive Wheel

1.2 Product Use
For material removal. See ANSI B7.1-2000

1.3 Company Details:
IBS, Inc.
Address:
740 Clay St NW
Auburn, WA 98001
Phone:
1-800-678-1906
Fax:
1-253-804-8665

SECTION 2 - Hazard Information

2.1 Precautionary statements
Wear Respirator, eye protection, and protective clothing when using product
Product will produce sparks and debris when in use, avoid using product near reactive or flammable substances or electrical equipment
Discard if product comes in contact with water

2.2 Description of Hazards
Respiratory Wheel dust is a respiratory irritant
Skin Wheel dust and fiberglass reinforcement is a skin irritant
Ingestion Acute product toxicity unknown
Eyes Wheel Dust is an eye irritant
Chronic Potential Chronic Effects include skin sensitization and restricted breathing
Hazard Status This product is classified as non hazardous under OSHA HCS 29 CFR 1910.1200

SECTION 3 - Composition

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Formula</th>
<th>% Weight</th>
<th>Cas #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum Oxide</td>
<td>Al₂O₃</td>
<td>60 - 80</td>
<td>1344-28-1</td>
</tr>
<tr>
<td>Silicon Carbide</td>
<td>SiC</td>
<td>0-70</td>
<td>409-21-2</td>
</tr>
<tr>
<td>Zirconium Oxide</td>
<td>ZrO₂</td>
<td>0 - 12</td>
<td>1314-23-4</td>
</tr>
<tr>
<td>Calcium Hydroxide</td>
<td>Ca(OH)₂</td>
<td>0-1</td>
<td>1305-62-0</td>
</tr>
<tr>
<td>Barium Sulfate</td>
<td>BaSO₄</td>
<td>0-10</td>
<td>7727-43-7</td>
</tr>
<tr>
<td>Iron Sulfide</td>
<td>FeS₂</td>
<td>0-18</td>
<td>12068-85-8</td>
</tr>
<tr>
<td>Alkali Aluminum Fluorides</td>
<td>-</td>
<td>0-15</td>
<td>15096-52-3/ 60304-36-1</td>
</tr>
<tr>
<td>Cured Phenolic Resin</td>
<td>-</td>
<td>0 - 15</td>
<td>N/A</td>
</tr>
<tr>
<td>Glass Fiber</td>
<td>-</td>
<td>0 - 5</td>
<td>N/A</td>
</tr>
<tr>
<td>Steel</td>
<td>-</td>
<td>0.1 - 1</td>
<td>N/A</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>-</td>
<td>trace</td>
<td>N/A</td>
</tr>
<tr>
<td>Zinc</td>
<td>Zn</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
**SECTION 4-First Aid**

4.1 First Aid for exposure

Dust Inhalation: Terminate exposure and remove to fresh air. Obtain medical assistance.

Ingestion: Obtain medical assistance.

Absorption: N/A

Skin contact: Terminate exposure and remove to fresh air. Obtain medical assistance.

Eye: Flush eyes with water.

4.2 Signs and Symptoms of Exposure

Acute: May cause coughing and shortness of breath during grinding.

Skin irritation.

Eye irritation.

**SECTION 5 - Fire Fighting Measures**

5.1 Flammable Properties: None

Means Of Extinction: Water or carbon dioxide

Special Fire Fighting Procedures: Consult NFPA or CFPA procedures

Unusual Fire or Explosion Hazards: None

**SECTION 6 - Accidental Release Measures**

Normal clean up procedures should be used if material is released

Use of gloves to clean up spent wheels is recommended

**SECTION 7- Storage, Handling and Use Procedures**

Handling: Avoid damage to wheel. Do not drop.

Always handle in accordance with ANSI B7.1.

Use: Always use in accordance with ANSI Z43.1 and OSHA 1910.215. Do not use dropped or damaged wheels. Do not use without machine guard in place.

Do not exceed maximum RPM on wheel.

Storage: Avoid excessive temperatures in storage. Store in a dry area.

**SECTION 8- Personal Protective Control Measures**

8.1 Control Measures

Protection: Requirements and Referrals.


Protective Gloves: Leather gloves.

Eye Protection: Protective eyewear such as safety glasses or face shield. Refer to OSHA 29 CFR 1910.133.

Hearing Protection: Hearing protection such as approved ear muffs or ear plugs. Refer to OSHA 29 CFR 1910.95.

Body Protection: Leather apron, chaps, or shoe coverings to shield from heavy spark showers in operation.

Hygienic Practices: Wash with soap and water after handling and grinding.
### 8.2 Exposure

<table>
<thead>
<tr>
<th>Chemical</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum C</td>
<td>NA</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>Silicon Carb</td>
<td>NA</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>Zirconium C</td>
<td>NA</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>Calcium Hydr</td>
<td>NA</td>
<td>5 mg/m³</td>
</tr>
<tr>
<td>Barium</td>
<td>5 mg/m³</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>Iron Dis</td>
<td>NA</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>Alkali Aluminum Fluorides</td>
<td>2.5 mg/m³</td>
<td>2.5 mg/m³ (As F)</td>
</tr>
<tr>
<td>Phenolic Res</td>
<td>NA</td>
<td>N/A</td>
</tr>
<tr>
<td>Fiber Gi</td>
<td>5 mg/m³</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>Carbon</td>
<td>3.5 mg/m³</td>
<td>3.5 mg/m³</td>
</tr>
</tbody>
</table>

### SECTION 9 - Physical/Chemical Characteristics

- **Boiling Point**: N/A  
  (H₂O = 1), **Specific Gravity**: 2 - 4
- **Vapor Pressure (mm Hg.)**: N/A  
  Melting Point: N/A
- **Vapor Density (AIR=1)**: N/A  
  Evaporation Rate (Butyl Acetate=1): N/A
- **Solubility in Water**: Insoluble  
  Appearance: Dark colored solid
- **Lower And Upper Explosion Limits**: N/A  
  Odor: burning plastic odor in use
- **Flammable Limits**: N/A  
  Degradation Temperature: ~ 800 F (427 C)
- **Flash Point**: N/A

### SECTION 10 - Stability and Reactivity Data

- Stable - Avoid excessive moisture and humidity, temperature extremes and contact with acids or solvents
- Not incompatible with any materials
- Hazardous Polymerization will not occur
- Dust and organic fumes are generated in use

### SECTION 11 - Toxicological Data

#### 11.1 Acute Toxicological Effects

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Route of Exposure</th>
<th>Acute LD₅₀</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum Oxide</td>
<td>oral</td>
<td>&gt;5000 mg/kg (rat)</td>
</tr>
<tr>
<td>Zirconium Oxide</td>
<td>oral</td>
<td>&gt;8800 mg/kg (mouse)</td>
</tr>
<tr>
<td>Glass fiber</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Alkali Aluminum Fluorides</td>
<td>oral</td>
<td>&gt;5000 mg/kg (rat)</td>
</tr>
<tr>
<td>Cured Phenolic resin</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Carbon black</td>
<td>oral</td>
<td>8000 mg/kg (rat)</td>
</tr>
<tr>
<td>Silicon Carbide</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Calcium Hydroxide</td>
<td>oral</td>
<td>7340 mg/kg (rat)</td>
</tr>
<tr>
<td>Barium Sulfate</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Iron Disulfide</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
11.2 Toxological Effects

Dust Inhalation: Coughing and shortness of breath, aggravation, decreased lung capacity of medical conditions such as asthma or emphysema

Ingestion: Can cause stomach pain, vomiting and diarrhea

Absorption: N/A

Skin contact: Grinding wheel may cause abrasions

Dust may cause skin irritation

Eye: Dust or fumes may cause eye irritation

Carcinogenicity: Unknown

Mutagenicity: Unknown

Reproductive Effects: Unknown

Section 12 - Ecological Information

No Data Available

Section 13 - Disposal Considerations

Dispose in accordance to local and federal regulations

Section 14 - Transport Information

Not regulated as a hazardous material for transport

Section 15 - Regulatory Information

No Data Available

Section 16 - Other Information

SDS Revision Date: November 1, 2014

Reason for Update: Mandated Update

Preparation By: IBS, Inc.

COMPANY USE

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