

HMIS Rating		<b>MATERIAL SAFETY DATA SHEET</b> (Complies with OSHA Communication Standard 29 CFR 1910.1200 Dept. of Labor) Form approved OMB No. 1218-0072 OSHA 174 - Sept. 1985	NFPA Rating	
Health			Health	
Flammability			Flammability	
Reactivity			Reactivity	
Personal Protection			Special	

### Section I - Product Identification

## Cut off Wheels & Grinding Wheels

Marketer's Name Must Appear Below <b>Bates Abrasives, Inc.</b>	DOT Shipping and Hazard Classification
Manufactured For: <b>IBS, Incorporated</b>	Emergency Telephone Number <b>800-231-5725</b>
Address: <b>740 Clay Street NW Auburn, WA 98001</b>	Telephone Number for Information <b>(253) 804-8666</b>
	Date Prepared <b>November 15, 2000</b>

### Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity)	OSHA PEL	ACGIH TLV	CAS Number	Carcinogen (Y/N)
Alpha-Alumina (Aluminum)	10mg/m <sup>2</sup>	10mg/m <sup>2</sup>	1344-28-1	N
Silicon Carbide	10mg/m <sup>2</sup>	10 mg/m <sup>2</sup>	409-21-1	N
Zirconia Alumina	5mg/m <sup>2</sup>	5mg/m <sup>2</sup>	NAIF	N

The grinding Wheel may be comprised of one or more of the above abrasives. The chemicals listed below may be a part of the bond system.

Hazardous Components (Specific Chemical Identity)	OSHA PEL	ACGIH TLV	CAS Number	Carcinogen (Y/N)
Fluorides (as F)	2.5mg/m <sup>2</sup>	2.5mg/m <sup>2</sup>	NA	N
Calcium Oxide	5mg/m <sup>2</sup>	2mg/m <sup>2</sup>	1305-78-8	N
Glass, Fibrous, or Dust	NAIF	NAIF	NAIF	N
Silicon Dioxide	0.1mg/m <sup>2</sup>	0.1mg/m <sup>2</sup>	14808-60-7	Y

All chemical compounds marked with an Asterisk (\*) are toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372. You must notify each person to whom this mixture or trade name is sold. This statement must remain a part of this Material Safety Data Sheet.

### Section III - Physical/Chemical Characteristics

Boiling Point: NAIF	Specific Gravity (H <sub>2</sub> O=1): 2-4	Melting Point: NAIF
Vapor Pressure PSIG @ 70°F: NAIF	Vapor Density (Air=1): NAIF	Evaporation Rate (Butyl Acetate=1): NAIF
Solubility in Water: SLIGHT	Appearance: SOLID SUBSTANCE	Odor: May give off odor in use

### Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used): NAIF	Flammable Limits: LEL UEL N/A N/A
Extinguishing Media: WATER	
Special Fire Fighting Procedures: NONE	
Unusual Fire and Explosion Hazards: NONE	

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in this MSDS. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.

<b>Section V - Reactivity Data</b>			
STABILITY:	<input type="checkbox"/> Unstable	Conditions to Avoid:	
	<input checked="" type="checkbox"/> Stable	NAIF	
Incompatibility (Materials To Avoid): <b>Avoid acids of all types with a PH &lt;= 4.0</b>			
Hazardous Decomposition or By-products: <b>Dusts and odors are generated in use. Coolants may produce other decomposition products.</b>			
Hazardous Polymerization	<input type="checkbox"/> May Occur	Conditions to Avoid:	
	<input checked="" type="checkbox"/> Will Not Occur	None known	
<b>Section VI - Health Hazard Data</b>			
<b>Routes of Entry:</b> Inhalation <b>Yes</b> Ingestion <b>Yes</b> Skin Absorption <b>Yes</b> Eye <b>Yes</b> - All during grinding			
<b>Carcinogenicity:</b> NTP?    IARC Monograph?    OSHA Regulated? <b>Yes</b>			
<b>Health Hazards (Acute and Chronic):</b> INHALATION /Acute: Coughing Shortness of Breath    Chronic: May affect breathing capacity. INGESTION- no known adverse effects. Ingestion not recommended. SKIN CONTACT - some individuals may experience irritation from dust. EYE CONTACT - Dust may irritate eyes. OTHER POTENTIAL RISKS: Grinding may create elevated sound levels which may affect hearing and may aggravate pre-existing medical conditions.			
<b>Signs and Symptoms of Exposure</b>			
<b>Inhalation:</b>	Difficulty in breathing		
<b>Ingestion:</b>	Nausea & vomiting.		
<b>Skin Contact:</b>	Redness.		
<b>Eye Contact:</b>	Irritation.		
Medical Conditions Aggravated by Exposure: <b>Respiratory Disorders.</b>			
<b>Emergency First Aid Procedures</b>			
<b>Inhalation:</b>	Remove to fresh air. Give oxygen. Resuscitate if necessary. Get medical help.		
<b>Ingestion:</b>	OBTAIN MEDICAL ASSISTANCE.		
<b>Skin Contact:</b>	Wash with soap and water. Obtain medical assistance.		
<b>Eye Contact:</b>	Flush with large amounts of water. Obtain medical assistance.		
<b>Section VII - Precautions for Safe Handling and Use</b>			
Steps to be Taken in Case Material is Released or Spilled: <b>Normal clean up procedures.</b>			
Waste Disposal Method: <b>Standard landfill methods consistent with applicable Federal, State &amp; local laws.</b>			
Precautions to be Taken in Handling and Storing: <b>Discard dropped or damaged items.</b>			
Other Precautions: <b>Product should be used only by personnel familiar with ANSI B7.1 and recommended rules for safe use.</b>			
<b>Section VIII - Control Measures</b>			
Protective Equipment Types			
Eyes:	<b>MANDATORY. See OSHA 29 CFR 1910.133</b>		
Respiratory:	<b>As needed. Approved dust respirators. See OSHA CFR 1910.</b>		
Gloves:	<b>Recommended</b>		
Other:	<b>Hearing protection as needed. See OSHA 29 CFR 1910.215</b>		
Ventilation:	General Mechanical <b>Yes</b>	Local Exhaust <b>Yes</b>	Other <b>N/A</b>
Work/Hygienic Practises:			