



MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Resin Bonded Abrasives Products
 Application: General Grinding
 Supplier: CALUMET ABRASIVES COMPANY, INC.
 3039 169th PLACE Hammond, IN 46323
 Telephone: 219.844.2695
 Fax: 219.989.4272

2. COMPOSITION, INFORMATION ON INGREDIENTS

Composition as per 29 cfr 1910.1200 (g) (4)

<u>Chemical Name</u>	<u>Percentage</u>	<u>Cas Number</u>	<u>OSHA Pel</u> Permissible Exposure Limit	<u>ACGIH TLV</u> Threshold Limit Value
Aluminum Oxide*	0-95	1344-28-1	15 mg/M ³	10 mg/M ³
Silicon Carbide	0-95	409-21-2	15 mg/M ³	10 mg/M ³
Zirconium Oxide	0-80	1314-23-4	15 mg/M ³ (Zr)	5 mg/M ³
Phenol Formaldehyde Resin (cured)**	3-15	9003-35-4	None Found	N/A
Fiberglass***	0-10	65997-17-3	15 mg/M ³	10 mg/M ³
Fluorides****	0-15	Various	2.5 mg/M ³ (F)	2.5 mg/M ³ (F)
Calcium Oxide	1-10	1305-78-8	5 mg/M ³	2 mg/M ³
Sulphates & Sulphides^	1-15	Various	10 mg/M ³ Tot.Dust	10 mg/M ³ (Dust)
Calcium Compounds	1-12	Various	10 mg/M ³ Tot.Dust	10 mg/M ³ (Dust)

*Aluminum Oxide is at least 96% pure, usually containing other metallic oxides as impurities.

**Free phenol [108-95-2] (PEL & TLV: 5ppm) and free Formaldehyde [50-00-0] (PEL : 0.75 ppm, TLV: 1 ppm) may be present in trace amounts.

*** Present only if fiberglass reinforced wheels.

**** Maximum Fluoride Content as F is 9.05%. Fluoride may be released in trace amounts under normal use.

^Substance is a compound +/- or mixture.

3. HAZARDS IDENTIFICATION

Inhalation Acute Exposure Effects: Dust may be slightly irritating to eyes and respiratory tract at high temp concentrations.

Eye Contact Acute Exposure Effects: Dust may irritate eyes.

Skin Contact Acute Exposure Effects: Some may experience skin irritation from dust.

Ingestion Acute Exposure Effects: No known adverse effects but ingestion should be avoided. Medical conditions generally recognized as being aggravated by exposure & may aggravate existing respiratory problems.

Dust generated from the intended use of this product may contain trace amounts of inorganic fluorides. Excessive exposure to fluorides has been shown in NIOSH studies to increase bone density. Dust generated from the intended use of this product may cause trace levels of phenolic resins which may under excessive exposure cause skin sensitization and airway obstruction.

9. PHYSICAL AND CHEMICAL PROPERTIES

<i>Appearance / Physical State:</i>	Porous solid.
<i>Color:</i>	Light or medium grey, brown or black.
<i>Odor:</i>	No detectable odor
<i>Solubility Description:</i>	In water, insoluble to slight
<i>Boiling Point:</i>	N/A
<i>Melt / Freeze Point:</i>	N/A
<i>Density / Specific Gravity:</i>	1.8 to 4.0
<i>Vapor Density:</i>	N/A
<i>Evaporation Rate:</i>	N/A
<i>pH:</i>	N/A

10. STABILITY AND REACTIVITY

<i>Incompatibilities:</i>	Avoid acids of all types with a pH<4.0.
<i>Decomposition Products:</i>	During use, dust and decomposing organic fumes are generated which may contain trace amounts of phenol, formaldehyde and fluorides, if present. In most cases, the material removed from the work piece will be significantly greater than the grinding wheel components. Coolants or other surface residues may produce decomposition products.
<i>Conditions to be Avoided:</i>	No applicable information available.

11. TOXICOLOGICAL INFORMATION

<i>Toxicological Information:</i>	No applicable information available.
<i>Sensitization:</i>	No applicable information available.
<i>Health Warnings:</i>	See 3. Hazards Identification.
<i>Carcinogenicity:</i>	Fiberglass contained in wheels have fiber diameters > 10 μm , therefore considered non-respiral.
<i>Reproduction / Teratogenicity:</i>	No applicable information available.
<i>Route of Entry-Inhalation</i>	
<i>Chronic Exposure Effects:</i>	Chronic may affect breathing.
<i>LD 50 / LC 50:</i>	Values are not appropriate or available.

12. ECOLOGICAL INFORMATION

<i>Chemical Fate:</i>	Resin Bonded materials may demonstrate similar degradation rate as phenolic plastics.
-----------------------	---

13. DISPOSAL CONSIDERATIONS

<i>Disposal Methods:</i>	Use standard landfill methods consistent with applicable Federal, State, Provincial and local laws. Products with listed fluorides may have slightly soluble fluoride swarf.
--------------------------	--

14. TRANSPORTATION INFORMATION

Proper Shipping Descriptions:

<i>U.S. DOT Class:</i>	This product is not hazardous as defined by the Department of Transportation. (USA)
<i>Canadian Transport:</i>	This product is "Not Regulated" under the Transportation of Dangerous Good Act. (CAN).

15. REGULATORY INFORMATION

Exposure Limits / Regulatory Information: This product contains chemicals and formaldehyde known to the state of California to cause cancer.
CA Prop 65

TSCA: Section 8 (b) Inventory Status: All components of this product are registered under the regulation of the Toxic Substance Control Act.

Domestic Substance List: All components of this product are found on the Domestic Substance List.

WHMIS Classification: D2B

16. ADDITIONAL INFORMATION

Additional information / Comments: The information contained in this Material Safety Data Sheet (MSDS) is based on data considered to be accurate as of the date issued. While the information is believed to be reliable, CABCO MAKES NO WARRANTIES EXPRESSED OR IMPLIED REGARDING MERCHANTABILITY OR ACCURACY OF THIS DATA OR RESULTS TO BE OBTAINED FROM THE USER FOR ANY PURPOSE THEREOF. The user is responsible for determining whether the product is fit for a particular purpose and suitable for user's method of use or application. Since there are a variety of factors that can affect the use and application of the product (some applications based on the users knowledge and control), it is essential that the user evaluate the product to determine if it is suitable for safe operation and method of use or application.

NFPA Rating: **Health – 1** **Flammability – 0** **Reactivity – 0**

HMIS: **Health – 1** **Flammability – 0** **Physical Hazard - 0**

Revision date: 04/18/07