MATERIAL SAFETY DATA SHEET Page:1 Effective Date: November 20, 1992 Code: Asbestos Free Disc Brake Materials Section 1 - PRODUCT AND COMPANY IDENTIFICATION PRODUCT NAME: Asbestos Free Disc Brake Material Identity Friction Material: ZAF-75-FF/ZAF-76-FF,TS3120FF,TS3125FF, SS3110FF,SS3105FF MANUFACTURER'S NAME: EMERGENCY TELEPHONE NO. BrakePro, Inc. (770)387-0100 101 Friction Drive Cartersville, Georgia 30120 MISCELLANEOUS INFORMATION: (770)387-0100 SUPPLIER'S NAME: Ravloc Division of Genuine Parts Company 3100 Windy Hill Road Atlanta, Georgia 30339 **REVISION DATE:** Nov. 1, 2012 Section 2 - HAZARDOUS INGREDIENTS CAS NO. INGREDIENT ----EXPOSURE LIMITS----VΡ ACGIH OSHA % BY WT. TLV PEL UNITS HG Phenolic Resin -Phenol\*\* 5 ppm 5 ppm (skin notation) -Formaldehyde\*\* 0.3 ppm(A) 0.75 ppm (primary irritant) -Ammonia\*\* 50 ppm 25 ppm (primary irritant) -Calcium Hydroxide 15mg/m3(B) 5mg/m3 Mineral Fibers/Fibrous Pulp \* 15mq/m3(B)10mg/m3(B) (total dust)(C) Mineral Oil 5mg/m35mg/m3 (mist) 3.5mg/m3 (total dust) Carbon Black 3.5 mg/m\* 2.4mg/m3 (%Sio2 plus 2) 2mg/m3 (resp. dust) Coal (less than 5%Sio2)

15mg/m3

15mg/m3

15mg/m3(B)

1mg/m3

15mg/m3(B) 10mg/m3(B) (total dust)

0.5 mg/m

10mg/m3

2mg/m3 (resp. dust)

(D)

10mg/m3 (total dust)(C)

Coke

Graphite

Aluminum Oxide

Calcium Carbonate

Transition Metal Oxides

Mica 20 mppcf 3mg/m3 (resp. dust) Crumb Rubber 15mg/m3(B) 10mg/m3(B) (total dust) (C) Ferrous Metal Powders/Fibers\* 15mg/m3(B) 10mg/m3(B) (total dust) (C) Fibrous Glass 15mg/m3(B) 10mg/m3 (total dust) (C)

\* The exact percentage of ingredients in this product is proprietary information. Only components which may be health hazards as identified in 29 CFR 1910.1200 are listed above. Information necessary for emergency health or hazard health investigations will be released to medical or health and safety personnel under signed confidentiality agreements.

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Section 2 - HAZARDOUS INGREDIENTS (cont.)

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\*\* Phenolic resin system in this product is fully cured. Only trace amounts of these materials may be present.

- (A) The ACGIH lists formaldehyde as a suspect human carcinogen.
- (B) As particulates not otherwise regulated.
- (C) Respirable dust exposure limits for these components are 5mg/m3.
- (D) May contain trace amount of hexavalent chromium, a human carcinogen.

## Section 3 - HAZARDS IDENTIFICATION

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- -Signs and Symptoms of Exposure None during normal industrial use.
- -Routes of Entry

Inhalation: Yes Skin: No Ingestion: Unlikely

-Health Hazards (Acute and Chronic)

None during normal industrial use. Exposure to nuisance dusts may

occur during dry grinding.

-Carcinogenicity

NTP: No IARC Monographs: No OSHA Regulated: No

-Medical Conditions generally aggravated by exposure None during normal industrial use.

Section 4 - FIRST AID MEASURES

-Emergency and First Aid Procedures

Eye Contact: Immediately flush eyes with water for 15 minutes. If

irritation persists, consult a physician.

Skin Contact: No known hazard during normal industrial use. Inhalation: In case of irritation, remove to fresh air. Ingestion: No known hazard during normal industrial use.

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Section 5 - FIREFIGHTING MEASURES

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Flash Point: N/A LEL: N/A UEL: N/A

Flammability: N/A

Extinguishing Media: ABC Dry Chemical as appropriate for surrounding fire.

Special Firefighting Precautions: Suggested respiratory protection:

Positive pressure, self-contained breathing apparatus approved by

NIOSH/MSHA

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Section 5 - FIREFIGHTING MEASURES (cont.)

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Unusual Fire & Explosion Hazards: This material may produce irritating

smoke in smoldering fire

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Section 6 - ENVIRONMENTAL RELEASE MEASURES

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-Steps to be taken in case material is released or spilled

Material is a solid. Sweep (scoop) up and remove to a solid waste disposal area.

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Section 7 - HANDLING AND STORAGE

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-Precautions to be Taken in Handling and Storage Segregate stored material from oils and strong oxidizing agents. Keep away from electrical discharges, welding, open flames, extreme heat, and other sources of potential ignition. -Other Precautions
No special DOT classification

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Section 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

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Respiratory Protection: None required during normal industrial use.

Respiratory protection suitable for the measured nuisance dust level encountered is recommended during dry grinding. Minimally, a NIOSH approved dust mask should be worn during dry grinding.

Ventilation: Local Exhaust - None during normal industrial use.

Recommended during dry grinding.

Mechanical (general) - None during normal industrial use.

May be required during dry grinding.

Special - None during normal industrial use. Other - None during normal industrial use.

Protective Gloves: None during normal industrial use.

Eye Protection: None during normal industrial use. Goggles or safety

glasses with side shields are recommended during dry

grinding.

Other Protective Clothing or Equipment: None during normal industrial use. Work/Hygienic Practices: Standard hygienic practices during normal industrial use.

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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Boiling Point/Melting Point: N/A Specific Gravity (H20=1): 1.9-2.5

Vapor Pressure (mmHg): Very low

Vapor Density (air=1): N/A Evaporation Rate: N/A (butyl acetate=1)

Solubility in Water: Insoluable

Appearance and Odor: Greenish gray solid. No odor.

-NFP Chemical Hazard Rating

Health = 1 (slight) Fire = 1 (slight) Reactivity = 1 (slight) \_\_\_\_\_\_ Section 10 - STABILITY AND REACTIVITY \_\_\_\_\_ Stability: Stable Conditions to Avoid: No known hazard during normal industrial use. Avoid temperatures greater than 800 degrees F. Incompatibility (materials to avoid): Strong acids and other oxidizing agents -Hazardous Decomposition or By Products Normal combustion products: carbon monoxide, carbon dioxide, and soot Product specific combustion products: ammonia, oxides of nitrogen, phenols, and aldehydes Hazardous Polymerization: Will not occur. Conditions to Avoid: N/A Section 11 - TOXICOLOGICAL INFORMATION Information Not Available Section 12 - ECOLOGICAL INFORMATION \_\_\_\_\_ Information Not Available ------Section 13 - DISPOSAL CONSIDERATIONS -Waste Disposal Method Dispose according to applicable federal, state and local regulations. \_\_\_\_\_\_ MATERIAL SAFETY DATA SHEET Effective Date: November 20, 1992 Code: Asbestos Free Disc Brake Material \_\_\_\_\_

Section 14 - TRANSPORT INFORMATION

Information Not Available

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## Section 15 - REGULATORY INFORMATION

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-California (Proposition 65) Information
This product, as sold, is not believed to contain any chemical known to
the state of California to cause cancer, birth defects, or other
reproductive "harm".

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## Section 16 - OTHER INFORMATION

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## -SARA Title III Information

This product may contain phenolk, formaldehyde, ammonia, and aluminum oxide (fibrous forms) and therefore, may be subject to the reporting requirements of Section 313, Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372 if present or used in sufficient quantities.

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