



Revised 8/1/86

MATERIAL SAFETY DATA SHEET

May be used to comply with OSHA's Hazard Communication Standard 29 CFR 1910, 1200.
Standard must be consulted for specific requirements.

The product identity on this page meets the OSHA definition of an article and is exempt from the Hazard Communication Standard as to all normally careful uses. Some potential may exist for exposure to dust.

The ingredients in these products are resin-bonded and hazards normally associated with contact to pure dusts of the listed ingredients should not be significant. Abex has listed all of the essential ingredients present in a series of products of this general description. All products identified on this MSDS contain asbestos but will not contain all of the other materials shown. The recommended exposure limits are those for the most hazardous substance in a class of substances. Exact formulation is considered proprietary and confidential. Precise product information will not be disclosed, other than to a health professional in accordance with the regulations, without an approved Secrecy Agreement.

The information herein is believed to be accurate, however, Abex makes no representation or warranty as to its accuracy. This data is furnished gratuitously and independently of any sale of the product, and only for customer investigation and independent verification.

Abex shall in no event be responsible for any damages of whatever nature directly or indirectly resulting from the publication or use of or reliance upon data contained herein. No express or implied warranty of any kind, including warranties of merchantability or fitness for use, with respect to the product or to the data herein is made hereunder.

IDENTITY (As Used on Label and List)

40 Series, 41-16, 546 Series, 48-2, 74-12, 74-13S, 80, 5102, 129-10, 150-102, 279-4A, 303-11, 343W, 438, 562-566, 610-124&192, 683-49, 693-499 Series 693-(512, 531, 539, A551 Series), 734-161, 822-44B, 852-105&108, 891-1, 895-(48, 63&71), 1000-12, 1202-8, 3023-7, 3025-93&273, 3032-7, ABEX (610GG, 611GG, 607FE, 620FD, 632DD, 631GE, 604FF, 693EF, 630FF, 628FE, 605GH, 614EF, 633EE, 613GG, 674GG, 680GG, 678GG, 618FF, 644FE, 688FF, 689FF, 6040FF, 688FF, 692FF, 684FF), ABB (220GG, 222GG, 203FE, 204FD, 216DD, 229GE, 206FF, 256EF, 234FF, 221FE, 208GH, 207EF, 223EE, 208GG, 240GG, 241GG, 280FF, 217FF, 245FE, 286FF, 297FF, 283FF, 289FF, 297FF), COM (318GG, 320GG, 301FE, 302FD, 314DD, 327GE, 304FF, 358EF, 332FF, 318FE, 307GH, 305EF, 321EE, 306GG, 355GG, 340GG, 315FF, 368FE, 352FE, 353FF, 376FF, 388FF, 373FF, 378FF, 365FF), ST, 204FD, ST, 279FE, ES638FE, ST260FF, ES639FF, ST244F, 708-4, ABK-518B, 257, 258, COM375EE, 511

SECTION I

Manufacturer's Name: ABEX CORPORATION Friction Products Division	Emergency Telephone Number (703) 662-3842
	Telephone Number for Information (703) 662-3871
Address: (Number, Street, City, State, Zip Code) 2410 Papermill Road, P.O. Box 3250 Winchester, VA. 22601	Date Prepared November 12, 1985
	Preparer M. K. Leung

SECTION II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity: Common Name(s))	OSHA	PEL	ACGIH	TLV
Asbestos (Crysotile), Talc	0.2 fibers/c.c.		2 fibers/c.c.	
Silica, Silicate, Tripoli	0.1 mg/M ³		0.1 mg/M ³	
Carbon Black, Graphite, Coal, Coke	2.0 mg/M ³		2.0 mg/M ³	
Phenolic, Cashew and Elastomer Compounds	19.0 mg/M ³		19.0 mg/M ³	
Wood Flour and Other Fillers	1.0 mg/M ³		1.0 mg/M ³	
Iron, Zinc, Aluminum, Brass and their Oxides	10.0 mg/M ³		10.0 mg/M ³	
Copper Oxide	1.0 mg/M ³		1.0 mg/M ³	

SECTION III - Physical / Chemical Characteristics

Boiling Point	NA	Specific Gravity (H₂O = 1)	1.8-2.8
Vapor Pressure (mm Hg.)	NA	Melting Point	NA
Vapor Density (Air = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	0
Solubility in Water No			
Appearance and Odor Solid, Light Tan to Dark Grey Color, Friction Material Odor			Warner SBC-25-000004

SECTION IV - Fire and Explosion Hazard Data			
Flash Point (Method Used)	NA	Flammable Limits	NA
Extinguishing Media	Water, (Class A, B, or C)		
Special Fire Fighting Procedures	Positive pressure self-contained breathing apparatus should be used. Personnel not having suitable respiratory protection should leave the area to prevent significant exposure to toxic combustion gases from any source.		
Unusual Fire and Explosion Hazards	NK		

SECTION V - Reactivity Data			
Stability	Unstable		Conditions to Avoid NK
	Stable	X	
Incompatibility (Materials to Avoid)	NK		
Hazardous Decomposition or Byproducts	Incomplete combustion will create carbon monoxide and dioxide.		
Hazardous Polymerization	May Occur		Conditions to Avoid NK
	Will Not Occur	X	

SECTION VI - Health Hazard Data			
Route(s) of Entry:	Inhalation? Yes	Skin? Yes	Ingestion? Yes
Health Hazards (Acute and Chronic) Some persons may be sensitive to cashew resins and develop dermatitis-type problems. Dust of asbestos, silica, talc, graphite, carbon black, and coal can produce pneumoconiosis and other lung damage. Metal dusts can be irritants of the eyes and upper respiratory system. There is little evidence of chronic industrial poisoning from iron, aluminum, and zinc dusts. Copper may cause keratinization and discoloring of the skin. Chronic intoxication from copper is rare and only in persons with Wilson's Disease. Zinc and copper can produce metal fume fever, but is generally associated with exposures to freshly generated fume of those alloys (molten state).			
Carcinogenicity:	NTP? Yes	IARC Monographs? Yes	OSHA Regulated? No
Signs and Symptoms of Exposure Cashew Resins — skin eruptions similar in appearance to poison ivy. Pneumoconiosis — coughing, wheezing, shortness of breath, impaired pulmonary function. Copper may produce metallic taste in mouth and nausea. Small amounts of ingested copper induces vomiting. Dusts in eye may cause irritation. Gastrointestinal disturbances possible from ingestion.			
Medical Conditions Generally Aggravated by Exposure Copper exposure and Wilson's Disease			
Emergency and First Aid Procedures Should not be necessary from the handling of this product.			
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SECTION VII - Precautions for Safe Handling and Use	
Steps to Be Taken in Case Material is Released or Spilled Grinding, drilling, milling, etc. can result in the release of airborne dust. Measures as outlined in Section VIII should be followed if this occurs.	
Waste Disposal Method Asbestos: Per 40 CFR, Part 61, 29 CFR, Part 1910.1001. Other Hazardous Ingredients: Per 40 CFR, Part 261, 262 and applicable State and Local regulations.	
Other Precautions Pre-employment screening for allergies and histories of skin sensitivities may be beneficial in determining persons sensitive to cashew materials.	

SECTION VIII - Control Measures	
Respiratory Protection (Specify Type) NIOSH approved for pneumoconiosis - fibrosis producing dusts and dusts with TLV not less than 0.05 mg/M ³ .	
Ventilation	Local Exhaust For dust exposures exceeding TLV.
	Mechanical (General) Not recommended for dust exposures.
	Special NK
	Other Barrier creams for persons with skin sensitive to cashew resins.
Protective Gloves Recommended for persons with skin sensitive to cashew resins.	
Eye Protection Should not be needed for normal handling of product. Eye protection is good practice where dust is propelled by grinding or drilling activities.	
Other Protective Clothing or Equipment Long sleeved shirts or other protective clothing may be beneficial to prevent skin contact of persons sensitive to cashew resins.	
Work/Hygienic Practices Employees should be properly instructed in the use of control measures as indicated above when there is a need for it. If dust from this product is produced, unnecessary exposures should be avoided by using a vacuum in place of dry brooming. Use wet method of cleaning for other surfaces. Proper and adequate personal hygiene should be practiced by exposed workers.	

NA - Not Available
 NK - Not Known

Warner SBC-25-000006