



Material Safety Data Sheet  
Brake Lining

Motion Control Industries  
Subsidiary of Carlisle Companies Inc.  
4040 Lewis & Clark Drive  
Charlottesville, VA. 22911

May be used to comply  
Hazard Communication  
OSHA Standard 1910.1200  
Revision 7: November 20, 2000  
Prepared by: Tina Brown

Manufactured in:  
Fredricksburg, VA  
Ridgway, PA

HMIS Rating

0 Fire Hazard  
0 Health Hazard  
0 Reactivity  
1 Personal Protection

Flammability Rating

0  
Health Rating 1  
0 Reactivity

HAZARD RATING  
Rating consistent with HFFPA Code

Carlisle brake lining is a resin bonded product which does not contain asbestos. When used as intended this product meets the OSHA definition of an article and is exempt for the Hazard Communication Standard. A potential for exposure to dust when grinding, drilling, milling, etc. exists and therefore all information contained within should be followed.

Materials listed on this data sheet are contained in this product. Exact percentages are proprietary and confidential and will not be disclosed other than as required with the regulations.

The data sheet is not part of any contract or sale. While the information and recommendations set forth herein are believed to be accurate, Carlisle Corporation makes no warranty with respect thereto and disclaims all liability from reliance thereon.

All applicable and after mentioned standards and specifics must be consulted for specific requirements, recommendations and controls.

**Section I - Identity**

Non asbestos friction material - Identity found on box and product

MB19, MB21, MB23, CF2000

**Section II - Hazardous Ingredients/Identity Information**

From C. Pedgley 3/27/21  
used in Charlottesville and Lebanon

Listed chemicals may be subject to reporting requirements of Section 311, 312, & 313 of the Title of the Superfund Amendments and Reauthorization Act of 1986, 40CFR Part 372

Hazardous Components	C.A.S.	Hazard Type	Respirable-Particulate	NIOIS	ACGIH	Recommended
Alumina 1344-28-1		Physical Irritant	10mg/m3 5mg/m3	10mg/m3	5mg/m3	
Mineral Wood Fibers		Respiratory Irritant	10mg/m3*	10mg/m3	5mg/m3	*5f/cc
Barium Sulfates** 7727-43-7		Physical Irritant	10mg/m3 5mg/m3	5mg/m3	10mg/m3	
Ground Coal		Respiratory Irritant	.1mg/m3	.1mg/m3	.1mg/m3	
Calcium Carbonates 1317-65-3		Physical Irritant	15mg/m3 5mg/m3	10mg/m3	5mg/m3	
Graphites/Carbons 7782-42-5		Respiratory Irritant	2.5mg/m3	2.5mg/m3	2.5mg/m3	
Glass Fibers		Respiratory Irritant	5mg/m3	5mg/m3	3f/cc	
Man Made Carbon & Organic Fibers		Respiratory Irritant	Not Reg.	Not Reg.	Not Reg.	.5f/cc
Iron Powders		Respiratory Irritant	5mg/m3	2.5mg/m3	5mg/m3	
Cellulose Fibers 9004-34-6		Physical Irritant	15mg/m3 5mg/m3	5mg/m3	5mg/m3	
Cashew/Phenolic Resins		Phys. & Resp. Irrt.	Not Reg.	Not Reg.	Not Reg.	5mg/m3
Metal Fibers		Physical Irritant	10mg/m3 5mg/m3	5mg/m3	5mg/m3	
Elastomer		Physical Irritant	Not Est.	Not Est.	Not Est.	5mg/m3
Talc		Respiratory Irritant	10mg/m3 10mg/m3	10mg/m3	10mg/m3	
Magnesium Oxide		Respiratory Irritant	10mg/m3 10mg/m3	1mg/m3	10mg/m3	
Wood Flour and Other Fillers		Respiratory Irritant	1mg/m3 1mg/m3	1mg/m3	1mg/m3	
Silica, Silicates,		Respiratory Irritant	0.1mg/m3 0.1mg/m3	0.1mg/m3	0.1mg/m3	

\*Currently under review

\*\*Subject to EPA Section 313 Reporting 400CFR part 372-Product contains 5-30% Barium Sulfate.

#### Additional Regulatory Information

**D.O.T. Information** - not regulated - no shipping name or number assigned to brake lining.

Above listed components are part of a resin bonded system with added binders. The product is pressed, cured and finished into a specific configuration. The combination of these specific chemical ingredients has created a chemically bound product which no longer exhibits specific chemical properties of the above listed individual chemicals.

### Section III - Health Hazard Data

A) **Threshold Limit Value** - Non asbestos Brake Lining is currently not regulated by OSHA, NIOSH, and ACGIH. When handled property does not present a known health risk. When grinding, drilling, or reworking, necessary precautions should be taken to avoid creating dust. See Section IV.

B) **Carcinogenicity** NTP? No IARC? No OSHA? No

C) **Signs and Symptoms of Exposure** - Rash may develop on employees with sensitive skin. Dryness of the throat and shortness of breath indicates overexposure to dust.

D) **Medical Conditions Generally Aggravated by Exposure** - None Known

E) **Hazardous Components Health Hazards** - Alumina, Barium Sulfates, Calcium Carbonates, Cellulose Fibers, Phenolic Resins and Cashew Resins can cause skin, eye, respiratory, and physical irritation, and perhaps pneumoconiosis.

Coal dust, Graphite, and Iron powders can cause anthrocosilicosis, pneumoconiosis, and fibrotic changes possibly linked to the naturally occurring small amounts of silica contained in these materials.

Fibrous glass - exposure to glass fibers causes irritation to the skin and less frequently eye, nose, and throat.

A number of epidemiology studies, done of workers employed for up to 40 years in the manufacturing of fiberglass, have shown no evidence of increases in either malignant or non-malignant respiratory diseases attributable to fiberglass. Animal inhalation studies for fiberglass have not shown evidence of either a carcinogenic or fibrogenic response. Studies using artificial implantation or injection of glass fibers have resulted in cancer in laboratory animals. However, since there are no natural mechanisms which would mimic such artificial exposures, those studies are not thought to be relevant to human exposure.

Mineral Wool - Although inconclusive, studies indicate that factory workers who were first employed in the manufacturing of mineral wool or glass wool more than 30 years ago have a somewhat higher risk of lung cancer or other diseases than the general public.

Whether the effects of smoking and exposure to mineral wool fiber are more than additive is unclear, but smoking by these workers was found to contribute to the higher incidence of lung cancer. Because of this it is recommended that people handling mineral wool on a regular basis not smoke.

Scientist reviewing these results agree further study is necessary to determine what other factors might be responsible for this reported increased risk. Further studies are now being conducted to investigate what effects their occupational exposures and lifestyle had on these workers. Records will be examined to learn if these employees may have been exposed to other carcinogens.

Several research studies using animals have shown that breathing of airborne mineral wool fibers does not cause any cancer or lung disease.

G) **Threshold Limit Values, Individual Components** - (See Section II - Exposure to dusts below exposure limits will decrease the likelihood that employees will be at a significant risk of respiratory and physical effects when exposed to these substances.

H) **Routes of Entry:** Inhalation? Yes Skin? Yes Ingestion? No

I) **Long Term Effects:** Lung damage may occur if exposed to levels of dust above current limits.

J) **First Aid Measures:** If over exposed to dust, remove from area, provide water and fresh air and contact physician. If rash develops, remove from area and clean rash area with plenty of cool water and provide skin creams. To ensure safety of employees provide adequate ventilation when working with the product.

#### Section IV - Control Measures

Respiratory Protection: (Specify Type): NIOSH approved for pneumoconiosis and fibrosis producing dusts with TLV's not less than 0.05mg/m<sup>3</sup>. Such as 3M 8710. Follow respirator standard 1910.34

**Ventilation:** Local Exhaust recommended to avoid contact with dust. Use adequate exhaust velocities to remove airborne particulate from work area.

**Mechanical (General)** - Remove dust with vacuum system.

**Protective Gloves:** As needed

**Eye Protection:** OSHA Approved safety glasses

**Other Protective Clothing or Equipment:** Protective sleeves and creams for employees with sensitive skin.

**Work/Hygenic Practices:** Proper work practices and methods as outlined above. Employees should not remove dust using compressed air.

## Section V - Precautions for Safe Handling and Use

Steps to be taken in case material is released or spilled : Avoid creating dust. Avoid sweeping or otherwise generative airborne particulate. Use approved vacuum methods. Use wet methods for cleaning or removing dust from drums. Do not use compressed air. Avoid breathing dust. Use respirator if dust becomes airborne.

Waste disposal method : Follow Local, State, and Federal waste disposal regulations. Properly mark all containers with appropriate labeling and dispose in landfill in compliance with regulations.

Precautions to be take in handling and storing : Avoid creating excessive dust. Use dust collection in grinding, drilling or altering product in any way.

Other Precautions : Protective creams and sleeves may be necessary for employees with sensitive skin. Clean up using soap and water prior to eating. Wash clothes separately.

## Section VI - Physical/ Chemical Properties

Boiling Point	N/A	Specific Gravity (H <sub>2</sub> O=1)	1.8 - 3.5
Vapor Pressure (mmHg):	N/A	Melting Point:	N/A
Vapor Density (Air - 1):	N/A	Evaporation Rate (Butyl Acetate -1)0	
Solubility in Water	None	Appearance and Odor:	Solid, light tan to dark in color. Slight sour odor

## Section VII - Fire and Explosion Data

Flash Point:	Not available
Flammable Limits:	N/A
Extinguishing Media:	Water - Extinguisher class A, B, and C
Special Fire Fighting Procedures:	Positive pressure, self-contained breathing apparatus
Unusual Fire and Explosion Hazards:	Flammable only in oxygen-rich atmosphere

## Section VIII - Reactivity Data

Stability:	Stable
Conditions to Avoid:	N/A

Incompatibility (Materials to Avoid):	Not Known
Hazardous Decomposition of Byproducts :	Not Known
Hazardous Polymerization :	May Occur
Conditions to Avoid :	N/A

### **Section IX - Special Precautions**

Monitoring to determine dust and fiber limits should be done in accordance with OSHA recommended guidelines. Work areas should be kept clean and free from airborne dust through adequate dust collection and proper ventilation.

The information presented herein, while not guaranteed, was prepared on information from raw material suppliers, current government standards, and ACGIH guidelines. No warranty, or guarantee, expressed or implied, is made regarding performance, stability, or otherwise. It is the user's responsibility to determine the safety of the product for his own use.

While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, safe handling and use remains the responsibility of the user.

Any government regulations prompting changes regarding information provided to the users will be supplied to the user as it becomes available. The user is also responsible for obtaining up-to-date information pertaining to safety as it becomes available, and for making its employees aware of all current and future safety requirements.

**Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III** : Carlisle Brake Lining contains certain chemicals regulated under the Emergency Planning and Community Right-to-know Act (EPCRA) of SARA Title III and 40 CFR part 372. Carlisle Brake Lining is not regulated as hazardous waste under CERCLA and is not subject to the Superfund tax.

If there is any other additional information which you require for use purposes, please contact Tina Brown at (804)975-6028 x7801.