# Material Safety Data Sheet (Complies with 29 CFR 1910.1200)

Section I				
Manufacturer	Carlisle Brake & Frictio	Carlisle Brake & Friction 6180 Cochran Road, Solon, OH 44139		
Emergency Phone .	216-498-2275	Effective Date	February 8, 1989	
Chemical Name	Friction Material	Revision Date	1-5-2015	
Tradename	Sintered Friction Material			
Category	Inorganic8017-B			

Section II - Hazardous Ingredients / Identity				
Component	OSHA-PEL (mg/m <sup>3</sup> )	ACGIH-TLV	%	CAS No.
		(mg/m <sup>3)</sup>		
Silicon Carbide	Total=15.0 Resp.= 5.0	10.0	Proprietary	409-21-2
Iron	Total=15.0 Resp.= 5.0	10.0	Proprietary	7439-89-6
Carbon	Total=15.0 Resp.= 5.0	10.0	Proprietary	7782-42-5
Boron Nitride	N/A	5.0	Proprietary	

Section III - Physical Characteristics			
Boiling Point	N/A	Sp.Gr. $(H_2O=1)$	
Vapor Press (mm Hg)	N/A	Solubility in Water	Insoluble
Reactivity in Water	N/A	Vapor Density (Air=1)	N/A
Melting Point	> 2300° F	Color	Grey
Appearance/Odor	No Odor		

Section IV - Fire and Explosion Data					
Flashpoint	N/A	Method used	N/A		
Flammable Limits (LEL/UEL)	N/A	Special Fire Fighting Pro	cedure	edure None	
Auto Ignition Temperature	N/A	Extinguishing Media	CO <sub>2</sub> , 1	coam, dry chemical, water	
Unusual Fire and Explosion Hazards	Molybdenum compounds react violently with potassium nitrate and $H_2O_2$ .				

Section V - Reactivity Data		
Stability	Stable	
Incompatibility (Materials to Avoid)	None	
Hazardous Decomposition Products	None	
Hazardous Polymerization	Will Not Occur	
Conditions to Avoid	None	

# **Section VI - Health Hazards**

## **Effects of Overexposure:**

Inhalation: a) Iron inhalation can cause slight upper respiratory irritation, coughing and a metal taste in mouth.

b) Chronic exposure to carbon as graphite dust can cause fibrosis, emphysema and corpulmonale.

c) Boron Nitride dust may produce pneunoconiosis.

## **Emergency Procedures**

Eye Contact: Flush with clean water for 15 minutes. If irritation persists, contact a physician. Skin Contact: Wash thoroughly with soap and water.

- Inhalation: Following exposure to a large amount of dust, remove from exposure. If breathing has stopped, perform artificial respiration. Contact a physician.
- Ingestion: Under normal conditions of industrial use, ingestion is not expected to occur. When ingestioned, molybdenum is considered a poison, causing severe GI irritation, diarrhea, coma and death from heart failure. **Do not induce vomiting.** Get medical attention.. If patient is conscious, give large quantities of water or milk.

Section VII - Spill/Leak Procedures		
Handling, Storage	None applicable	
DOT Shipping Rules	Non-hazardous as "article", no special precautions	
Spill/Leak	N/A	
Waste Disposal Methods	Check with local counsel for applicable laws/regulations	

#### Section VIII - Special Protection /Control Measures

Respiratory Protection/Ventilation	Use a NIOSH approved respirator with appropriate filters when exposed to brake wear products. Use exhaust ventilation to keep exposure below exposure limits.	
Protective Gloves	Recommended, particularly if sensitive skin.	
Eye Protection	Recommended	
Other Protective Equipment	N/A	

# **Section IX - Special Precautions**

No special precautions necessary

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