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

Section I			
Manufacturer	Carlisle Brake and	Friction 6180 Cochra	an Road, Solon, OH 44139
Emergency Phone .	440-528-4000	Effective Date	August 8, 2012
Chemical Name	Friction Material	Revision Date	August 8, 2012
Tradename	Sintered Friction M	laterial	
Category	Inorganic—8032 N		

Section II - Hazardous Ingredients / Identity				
Component	OSHA-PEL (mg/m <sup>3)</sup>	ACGIH-TLV	%	CAS No.
		$(mg/m^3)$		
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 <sub>2</sub> O=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	None
Auto Ignition Temperature	N/A	Extinguishing	CO <sub>2</sub> , foam, dry chemical, water	
		Media		
Unusual Fire and Explosion	Molybdenum compounds react violently with potassium nitrate			
Hazards	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	

Page 1 8032-N

#### **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 kee 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

Disclaimer

The information contained herein is based on data available at this time and is believed to be accurate. No warranty, however, is expressed or implied in no event will Carlisle Brake and Friction be liable for incidental or consequential damages of any kind regarding the accuracy of this data or the results to be obtained from the use thereof. Since information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar, no responsibility is assumed for the results of its use. The person receiving this information should make his own determination of the suitability of the material for his particular purpose.

8032-N Page 2