Material Saftey Data Sheet

(Complies with 29 CFR 1910.1200)

Section I			
Manufacturer	Carlisle Brake & Friction 920 Lake Road Medina, Ohio 44256		
Emergency Phone	330-725-4941	Effective Date	5-Jun-86
Chemical Name	Friction Material	Revision Date	5-Jan-15
Tradename	Sintered Friction Material		
Category	Inorganic- 798B		

Section II-Hazardous Ingredients/Identity				
Component	OSHA-PEL (mg/m3)	ACGIH-TLV (mg/m3)	%	CAS No.
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
Calcium Fluoride	2.5	2.5	Proprietary	7789-75-5
Molybdenum disulfide	15.0	15.0	Proprietary	1317-33-5
Zinc Stearate	10.0	10.0	Proprietary	557-05-1
Tin	2.0	2.0	Proprietary	7440-31-5

Section III Physical Characteristics			
Boiling Point	Fe-2800	Sp.Gr. (H_2O = 1)	Fe-7.8
Vapor Press (mm Hg)	N/A	Solubility in Water	Not soluble
Reactivity in Water	N/A	Vapor Density	N/A
Melting Point	N/A	Color	Reddish colored solid.
Appearance/Odor	Odorless		

Section IV-Fire and Explosion Data			
Flashpoint	N/A	Method Used	N/A
Flammable Limits (LEL/UEL)	N/A	Special Fire Fighting Proc.	None
Auto Ignition Temperature	N/A	Extinguishing Media	Water, CO_2, fog nozzles, &fine spray to avoid dust.
Unusual Fire and Explosion Hazards	Fine dry iron dust exeeding min. explosive concentration (120 oz. Per 1000 cu ft. of air) Can explode in presence of ignition source.		

Section V-Reactivity Data	
Stability	Stable
Incompatibility(Materials to Avoid)	N/A
Hazardous Decomposition Products	N/A
Hazardous Polymerization	Will not occur.
Conditions to Avoid	Strong oxidizing agents.

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Section VI -Health Hazards

Effects of Overexposure:

a) Iron can cause coughing, slight upper respiratory irritation, and a metallic taste in the mouth.
b) Chronic exposure to carbon as graphite dust can cause fribrosis, emphysema and corpulmale.
c) Molybdenum exposure can cause pneumoconiosis and "hard-metal lung disease".
d) Tin can cause neurologic disturbances including tremors and flaccid paralysis. Exposure to dust and fumes of tin oxide causes mild pneumoconiosis.
e) CaF2 dust may irritate eyes. Ingestion may cause gastrointenstinal pain. May be harmful or fatal if ingested.

Skin: Repeated exposure to copper (as salts) may casue dermatitis.

Emergency Procedures

Eye Contact:

In case of contact, immediately flush with water for 15 min. including under the eyelids. Seek medical help if material cannot be adequately removed from the eye.

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 ingested, 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	N/A
DOT Shipping Rules	N/A
Spill/Leak	Preferably wet method or vacuum to clean up.
Waste Disposal Methods	Check with local counsel for applicable laws/regulations.

Section VIII-Special Protection/Control Methods

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

Section IX- Special Precautions

Store inside in dry area. Temperature 0-100F.

Disclamer