

Material Safety Data Sheet

(Complies with 29 CFR 1910.1200)

Section I			
Manufacturer	Carlisle Brake & Friction 6180 Cochran Road, Solon, OH 44139		
Emergency Phone	440-498-2276	Effective Date	December 4, 2000
Chemical Name	Friction Material	Revision Date	June 9, 2015
Tradename	Friction Material		
Category	Inorganic—ABD-84-CHN		

Section II - Hazardous Ingredients / Identity				
Component	OSHA-PEL (mg/m ³)	ACGIH-TLV (mg/m ³)	%	CAS No.
Tin	2.0	2.0	Proprietary	7440-31-5
Lead	0.05	0.15	Proprietary	7439-92-1
Pumice (SiO ₂)	Total=10.0 Resp.= 2.0	2.5	Proprietary	1332-09-8
Cuprous Sulfide	1.0	1.0	Proprietary	22205-45-4

Section III - Physical Characteristics			
Boiling Point	N/A	Sp.Gr. (H ₂ O=1)	4.5
Vapor Press (mm Hg)	N/A	Solubility in Water	Insoluble
Reactivity in Water	N/A	Vapor Density (Air=1)	N/A
Melting Point	> 1500° F	Color	Copper color
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 Procedure	None
Auto Ignition Temperature	N/A	Extinguishing Media	CO ₂ , foam, dry chemical, water
Unusual Fire and Explosion Hazards	None		

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) Tin can cause neurologic disturbances including tremors and flaccid paralysis. Exposure to dust and fumes of tin oxide causes a mild pneumoconiosis.	
b) Lead can cause sperm malformation, central nervous system disorders, peripheral neuropathy, gastro intestinal disturbances, kidney damage and anemia. Lead exposure has been reported to reduce mental ability and has been linked to birth defects. Lead is listed by IARC as Group 2B, possibly carcinogenic to humans and is also listed as a carcinogen by the EPA.	
c) Exposure to respirable crystalline quartz may cause delayed (chronic) lung disease (silicosis); acute or rapidly developing silicosis may occur in a short period of time in heavy exposure. Silicosis is a form of disabling pulmonary fibrosis which can be progressive and may lead to death. Crystalline quartz is listed by IARC as Group 2A (known carcinogen); and determined by the NTP as an anticipated human carcinogen.	
Skin: Repeated exposure to copper (as salt) may cause dermatitis. If abrasions are present, lead exposure could be significant.	
Emergency Procedures	
Eye Contact:	In case of contact, immediately flush with water for 15 minutes, including under the eyelids. Seek medical help immediately 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:	Unlikely. If ingestion occurs, contact a physician.

Ingestion: Under normal conditions of industrial use, ingestion is not expected to occur.

Section VII - Spill/Leak Procedures

Handling, Storage	None applicable
DOT Shipping Rules	Hazardous Material
Spill/Leak	N/A
Waste Disposal Methods	Check with local counsel for applicable laws/regulations. Lead release is subject to SARA 313R reporting.

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

Section Ecological Information

No data on the ecological effects of this product have been developed.

Section Transportation Information

UN Number UN3077
ADR/RID: 9
IMO/IMDG Environmentally Hazardous Materials, Solid, N.O.S .,9, UN3077, III
ICAO/IATA: Environmentally Hazardous Materials, Solid, N.O.S .,9, Un3077, III

Section Hazardous Material Identification System/ Regulatory Information.

Health Hazard 3 – Serious: Toxic – Avoid inhalation or skin contact.
Flammability Hazard: 0 – Minimal: Will not burn under normal conditions.
Reactivity Hazard: 0 – Minimal: Normally stable, does not react with water.
Maximum Personal Protection: I – Safety Glasses, Gloves, Dust & Vapor Respirator.

Disclaimer

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