Perfection Hy-Test Company
100 Perfection Way
Timmonsville, SC 29161
(843)326-5544

Material Safety Data Sheet

(Complies with 29 CFR 1910.1200)

Section I			
Manufacturer	The S.K. Wellman Corp. 6180 Cochran Road, Solon, OH 44139		
Emergency Phone .	216-498-2275	Effective Date	Feb. 1, 1996
Chemical Name	Friction Material	Revision Date	Jan. 1, 2001
Tradename	Sintered Friction Material		
Category	Inorganic--Spec 179		

Section II - Hazardous Ingredients / Identity				
Component	OSHA-PEL (mg/m^3)	ACGIH-TLV (mg/m^3)	%	CAS No.
Copper	1.0	1.0	Proprietary	7440-50-8
Zirconium Oxide	5.0	5.0	Proprietary	14940-68-2
Tin	2.0	2.0	Proprietary	7440-31-5
Silicon Dioxide	0.1 * (Respirable fraction)	0.1 *	Proprietary	
Carbon	Total=15.0 Resp.= 5.0	10.0	Proprietary	7782-42-5

Section III - Physical Characteristics			
Boiling Point	N/A	Sp.Gr. (H_2O=1)	5.0
Vapor Press (mm Hg)	N/A	Solubility in Water	Insoluble
Reactivity in Water	N/A	Vapor Density (Air=1)	N/A
Melting Point	> 1650° 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) Inhalation of high concentrations of copper dust may cause intense sneezing, nausia, weakness and fever. Can cause hemolysis of red blood cells, deposition of hemofuscin in the liver and possible injury to lung cells.

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

c) Tin can cause neurologic disturbances including tremors and flaccid paralysis. Exposure to dust and fumes of tin oxide causes a mild pneumoconiosis.

d) Zircon sands contain trace quantities (106-20 pCi/g) of natural occuring radioactive Uranium & Thorium. Overexposure to respirable dust may cause lung cancer.

e) 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 the IARC as a Group 2A (known carcinogen); and determined by the NTP as an anticipated human carcinogen.

Skin: Repeated exposure to copper (as salts) may cause dermatitis. Aluminum oxide may cause skin abrasions.

Eye: Copper may cause conjunctivitis or ulceration and turbidity of the cornea.

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 injestion occurs, contact a physician.

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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