

MATERIAL SAFETY DATA SHEET

Product name: Carbon Steel Wire Brushes
Description: Cup Wheels and Flat Wheels
Supplier: Hilti, Inc. P.O. Box 21148, Tulsa, OK 74121
Emergency # (Chem-Trec.): 1 800 424 9300 (USA, PR, Virgin Islands, Canada); 001 703 527 3887 (other countries)

INGREDIENTS AND EXPOSURE LIMITS

Ingredients:	CAS Number:	TLV: (mg/m ³)	PEL: (mg/m ³)	STEL:
Iron	7439-89-6	NE	NE	NE
Manganese	7439-96-5	5	5	NE
Carbon	7440-44-0	NE	NE	NE
Silicon	7440-21-3	10	10 (T); 5 (R)	NE
Chromium	7440-47-3	0.5	1.0	NE
Trace Elements	NA	NE	NE	NE

Abbreviations: PEL = OSHA Permissible Exposure Limit. TLV = ACGIH Threshold Limit Value. These are expressed as an 8-hour time-weighted average. NE = None Established. NA = Not Applicable. (T) indicates "as total dust". (R) indicates "as respirable fraction". mg/m³ = milligrams per cubic meter.

PHYSICAL DATA

Appearance:	Gray metal	Odor:	None
Vapor Density: (air = 1)	Not applicable	Vapor Pressure:	Not applicable
Boiling Point:	Not applicable	VOC Content:	Not applicable
Evaporation Rate:	Not applicable	Solubility in Water:	Not applicable
Specific Gravity:	7.6 – 7.9	pH:	Not applicable

FIRE AND EXPLOSION HAZARD DATA

Flash Point:	Not applicable	Flammable Limits:	Not applicable
Extinguishing Media:	Not applicable		
Special Fire Fighting Procedures:	Not applicable		
Unusual Fire and Explosion Hazards:	Not applicable		

REACTIVITY DATA

Stability:	Stable.	Hazardous Polymerization:	Will not occur.
Incompatibility:	Avoid contact with acids.		
Decomposition Products:	None expected from normal use of this product.		
Conditions to Avoid:	None known.		

HEALTH HAZARD DATA

Known Hazards:	None expected from normal use of this product; however, dusts (such as scale, rust, dirt, slag, etc.) generated during brushing operations can cause respiratory irritation. Excessive noise levels can be generated during brushing operations.
Signs and Symptoms of Exposure:	None expected from this product; however, dusts generated from brushing operations can lead to wheezing, coughing, and respiratory irritation if dusts are not adequately controlled.
Routes of Exposure:	Inhalation (i.e. from dusts generated during brushing operations).
Carcinogenicity:	Chromium has been identified by IARC and NTP as a potential cancer causing agent. Ordinary use of this product does not present a cancer hazard from exposure to chromium.

**Medical Conditions
Aggravated by Exposure:**

Eye, skin, and respiratory conditions.

EMERGENCY AND FIRST AID PROCEDURES

Eyes:	Hold eyelids apart and flush with plenty of water to remove particles. Do not rub the eye. CAUTION: For imbedded particles, cover both eyes and have the patient remain calm to avoid movement of the eyeball. Contact a physician immediately.
Skin:	Practice good hygiene; i.e. wash with soap and water after use and before eating.
Inhalation:	Move victim to fresh air. Call a physician if symptoms persist.
Ingestion:	Not considered a route of exposure for this product.
Other:	Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure.

CONTROL MEASURES AND PERSONAL PROTECTIVE EQUIPMENT

Ventilation:	General (i.e. natural or mechanically induced fresh air movements that maintain vapor concentrations below recommended exposure limits) ventilation is usually adequate.
Eye Protection:	Safety goggles or full face shield as appropriate for the operations.
Skin Protection:	None normally required.
Respiratory Protection:	None normally required. Use a NIOSH-approved dust/mist respirator when ventilation is not adequate to control dusts generated from brushing operations.

PRECAUTIONS FOR SAFE HANDLING AND USE

Handling and Storing Precautions:	During brushing operations, particles will be propelled through the air; therefore, all personnel in the work area must wear appropriate personal protective equipment. Avoid exerting excessive pressure when using a power brush as this can result in damage and/or excessive wear on the brush.
Spill Procedures:	Not applicable.

REGULATORY INFORMATION

Hazard Communication:	This MSDS has been prepared in accordance with the federal OSHA Hazard Communication Standard. 29 CFR 1910.1200.
HMIS Codes:	Health 1, Flammability 0, Reactivity 0, PPE A (Goggles)
DOT Shipping Name:	Not regulated.
ICAO / IATA Shipping Name:	Not regulated.
TSCA Inventory Status:	Chemical components listed on TSCA inventory.
SARA Title III, Section 313:	This product is classified as an "article" and is not subject to reporting under Section 313 of SARA Title III (40 CFR Part 372).
EPA Waste Code(s):	Not regulated by EPA as a hazardous waste
Waste Disposal Methods:	Consult with regulatory agencies or corporate personnel for disposal methods that comply with local, state, and federal health and environmental regulations.

CONTACTS

Customer Service:	1 800 879 8000	Technical Service:	1 800 879 8000
Health / Safety:	1 800 879 6000	Jerry Metcalf	(x6704)
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