

# PEARL®

## Safety Data Sheet

### Carbon Steel Wire Brushes

#### 1. IDENTIFICATION

**Product Identifier:** Carbon Steel Wire Brushes

**Product Use:** Abrasive materials used for sanding metals, concrete, masonry, and building materials.

**Restrictions on Use:** Use only as directed.

**Manufacturer:** Pearl Abrasive Co.  
4900 Zambrano St.  
Commerce, CA 90040

**Phone:** (800) 969-5561  
**Emergency Phone:** (562) 927-5561  
**Website:** [www.pearlabrasive.com](http://www.pearlabrasive.com)

**Date of Preparation:** January 5, 2018

#### 2. HAZARD(S) IDENTIFICATION

As sold, this product is a manufactured article and is not classified as hazardous according to OSHA Communication Standard, 29 CFR 1910.1200.

#### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Concentration
Iron	7439-89-6	95-99
Manganese	7439-96-5	1.7 max
Chromium	7440-47-3	1.5 max
Silicon	7440-21-3	1.6 max

The specific identity and/or exact percentage has been withheld as a trade secret

#### 4. FIRST AID MEASURES

**Ingestion:** If dust is swallowed, seek medical attention.

**Inhalation:** If overexposed to dust, remove victim to fresh air and get medical attention.

**Eye Contact:** Flush eyes thoroughly with water, holding open eyelids. Get medical attention if irritation persists. Obtain immediate medical attention for foreign body in the eye.

**Skin Contact:** Wash dust from skin with soap and water. Launder contaminated clothing before reuse.

**Most important symptoms/effects, acute and delayed:** Eye and skin contact with brushing dust may cause mechanical irritation.

**Indication of immediate medical attention and special treatment, if necessary:** Immediate medical attention is generally not required.

## 5. FIRE FIGHTING MEASURES

**Suitable (and unsuitable) extinguishing media:** Use any media that is appropriate for the surrounding fire.

**Specific hazards arising from the chemical:** This product is not combustible, however, consideration must be given to the potential fire or explosion hazards from the base material being processed. Many materials create flammable or explosive dusts or turnings when machined or ground.

**Special protective equipment and precautions for fire-fighters:** Firefighters should wear full emergency equipment and NIOSH approved positive pressure self-contained breathing apparatus.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment, and emergency procedures:** Wear appropriate protective clothing as needed to avoid eye contact and inhalation of dust.

**Environmental precautions:** Avoid release into the environment. Report releases as required by local, state and federal authorities.

**Methods and materials for containment and cleaning up:** Pick up, sweep up or vacuum and place in a container for disposal. Minimize generation of dust.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Use only with adequate ventilation. Avoid breathing dust. Wash thoroughly after handling and use, especially before eating, drinking or smoking. Consider potential exposure to components of the base materials or coatings being brushed, machined or ground. Refer to OSHA's substance specific standards for additional work practice requirements where applicable.

In normal power brushing operations, the material being removed will fly off the brush with considerable force along with the brush filaments, which break off due to fatigue. The potential for serious injury exists for both the operator and others in the work area (possibly 50 feet or more from the brush). To protect against this hazard, before rotating the brush, during rotation and until the rotation stops, all persons in the area must wear safety goggles or full face shields over safety glasses with side shields, along with appropriate protective clothing.

**Conditions for safe storage, including any incompatibilities:** Store in a dry location.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines:

Iron (as iron oxide dust or fume)	10 mg/m <sup>3</sup> TWA OSHA PEL (as fume) 5 mg/m <sup>3</sup> TWA ACGIH TLV (respirable fraction)
Manganese	0.02 mg/m <sup>3</sup> TWA ACGIH TLV (respirable) 0.1 mg/m <sup>3</sup> TWA ACGIH TLV (inhalable) 5 mg/m <sup>3</sup> Ceiling OSHA PEL
Chromium	0.5 mg/m <sup>3</sup> TWA OSHA PEL 0.5 mg/m <sup>3</sup> TWA ACGIH TLV
Silicon	5 mg/m <sup>3</sup> TWA OSHA PEL (respirable fraction) 15 mg/m <sup>3</sup> TWA OSHA PEL (total dust)

Note: Consider also components of base materials and coatings being sanded.

**Appropriate engineering controls:** Use local exhaust or general ventilation as required to minimize exposure to dust and maintain the concentration of contaminants below occupational applicable limits.

**Individual protection measures, such as personal protective equipment:**

**Respiratory protection:** Use NIOSH approved respirator if exposure limits are exceeded or where dust exposures are excessive. Consider the potential for exposure to components of the coatings or base material being ground in selecting proper respiratory protection. Refer to OSHA's specific standards for lead, cadmium, etc. where appropriate. Selection of respiratory protection depends on the contaminant type, form and concentration. Select and use respirators in accordance with OSHA 1910.134 and good industrial hygiene practice.

**Skin protection:** Cloth or leather gloves recommended.

**Eye protection:** Safety goggles or face shield over safety glasses with side shields.

**Other:** Protective clothing as needed to prevent contamination of personal clothing. Hearing protection may be required.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance (physical state, color, etc.):** Metal brushes

**Odor:** No Odor

<b>Odor threshold:</b> Not applicable	<b>pH:</b> Not applicable
<b>Melting point/freezing point:</b> Not applicable	<b>Boiling Point:</b> Not applicable
<b>Flash point:</b> Non-Combustible	<b>Evaporation rate:</b> Not applicable
<b>Flammability (solid, gas):</b> Not applicable	
<b>Flammable limits: LEL:</b> Not applicable	<b>UEL:</b> Not applicable
<b>Vapor pressure:</b> Not applicable	<b>Vapor density:</b>
<b>Relative density:</b> Not applicable	<b>Solubility(ies):</b> Not soluble
<b>Partition coefficient: n-octanol/water:</b> Not applicable	<b>Auto-ignition temperature:</b> Not applicable
<b>Decomposition temperature:</b> Not applicable	<b>Viscosity:</b> Not applicable

## 10. STABILITY AND REACTIVITY

**Reactivity:** Not reactive

**Chemical stability:** Stable

**Possibility of hazardous reactions:** None known.

**Conditions to avoid:** None known

**Incompatible materials:** None known

**Hazardous decomposition products:** Dust from grinding or brushing could contain ingredients listed in Section 3 and other, potentially more hazardous components of the base material being ground or brushed or coatings applied to the base material.

## 11. TOXICOLOGICAL INFORMATION

### Routes of exposure:

**Ingestion:** None expected under normal use conditions. Swallowing large pieces may cause obstruction of the gastrointestinal tract.

**Inhalation:** Dust may cause respiratory irritation.

**Eye:** Dust may cause eye irritation. Dust particles or filings may cause abrasive injury to the eyes.

**Skin:** None expected under normal use conditions. Rubbing brush across the skin may cause mechanical irritation or abrasions.

**Sensitization:** This material is not known to cause sensitization.

**Chronic:** Long-term overexposure to dust may cause lung damage (fibrosis) with symptoms of coughing, shortness of breath and diminished breathing capacity. Chronic effects may be aggravated by smoking. Prolonged exposure to elevated noise levels during operations may affect hearing. Prolonged absorption of copper may cause adverse effects on the liver, kidneys and blood along with discoloration of hair and skin. Absorption of copper is not expected in the normal use of this product. A greater hazard, in most cases, is the exposure to the dust/fumes from the material or paint/coatings being ground or brushed. Most of the dust generated during grinding and brushing is from the base material being processed and the potential hazard from this exposure must be evaluated.

**Carcinogenicity:** None of the components are listed as a carcinogen or potential carcinogen by OSHA, NTP or IARC.

**Numerical measures of toxicity:** Iron: Oral rat LD50 98.6 g/kg, Inhalation LC50 > 5 mg/kg

Manganese: Oral rat LD50 > 2000 mg/kg, Inhalation rat LC50 > 5.14 mg/L

Chromium: Oral rat LD50 > 5000 mg/kg, Inhalation rat LC50 > 2.08 mg/L, Dermal rabbit LD50 > 5000 mg/kg

Silicon: Oral rat LD50 > 5000 mg/kg, Inhalation rat LC50 > 5.41 mg/L, Dermal rabbit LD50 > 5000 mg/kg

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** Iron: 96 hr LC50 *Oncorhynchus mykiss* 8.65 mg/L

Manganese: 96 hr LC50 *oncorhynchus mykiss* > 3.6 mg/L; 48 hr EC50 *daphnia magna* > 1.6 mg/L; 72 hr EC50 *desmodesmus subspicatus* 4.5 mg/L

Chromium: No data available

Silicon: No data available

**Persistence and degradability:** Biodegradation is not applicable to inorganic compounds.

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available.

**Other adverse effects:** No data available.

## 13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable local, state/provincial and federal regulations. Local regulations may be more stringent than regional and national requirements. It is the responsibility of the waste generator to determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations.

## 14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT	None	Not Regulated	None	None	
TDG	None	Not Regulated	None	None	

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Not applicable – product is transported only in packaged form.

**Special precautions:** None identified.

## 15. REGULATORY INFORMATION

**SARA Section 311/312 Hazard Categories:** Not Applicable (manufactured articles)

**SARA Section 313:** This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 (Toxic Chemical Release Reporting):

Components	C.A.S. #	WT %
Manganese	7439-96-5	≤1.7
Chromium	7440-47-3	≤1.5

**California Proposition 65:** WARNING! You create dust when you cut, sand, brush, drill or grind materials such as wood, paint, cement, masonry or metal. This dust often contains chemicals known to cause cancer, birth defects or other reproductive harm.

## 16. OTHER INFORMATION

<b>NFPA Rating:</b> Health = 1 <b>HMIS Rating:</b> Health = 1* *Chronic health hazard	Flammability = 0 Flammability = 0	Instability = 0 Physical Hazard = 0
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The preceding information is believed to be correct and current as of the date of preparation of this Material Safety Data Sheet. Since the use of this information and the conditions of use of this product are not within the control of Pearl Abrasive Co., it is the user's obligation to assure safe use of this product.