

1. IDENTIFICATION**Product Identity / Trade Name:** Carbon Steel Wire Brushes**Product Use:** Abrasive materials used on metals, concrete, masonry and building materials.**Manufacturer:** United Abrasives, Inc.
185 Boston Post Road
North Windham, CT 06256**Internet:** www.unitedabrasives.com**Information Phone:** (860) 456-7131 **Emergency Phone:** (860) 456-7131**Date of Preparation:** September 21, 2015**2. HAZARD(S) IDENTIFICATION****Classification:** Not classified as hazardous as defined by the GHS and OSHA 29 CFR 1910.1200.**Label Elements:** None Required.**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Chemical name	CAS No.	Concentration
Iron	7439-89-6	95-99
Petroleum Distillates	64742-52-5 64741-86-2 64741-97-5	0-3.0
Drawing Lubricant	1592-23-0 822-16-2	0.0-2.0
Manganese	7439-96-5	0.25-1.65
Silicon	7440-21-3	0.0-1.6
Chromium	7440-47-3	0.0-1.5
Carbon	7440-44-0	0.01-1.1
Phosphate	4265-44-2	0.0-1.0
Borax	1303-96-4	0.0-1.0
Lime	1305-62-0	0.0-1.0
Vanadium	7440-62-2	0.0-0.35
Phosphorus	7723-14-0	0.0-0.04
Sulfur	7704-34-9	0.0-0.035
Lead	7439-92-1	0.0-0.005

The specific identity and/or exact percentage has been withheld as a trade secret.**4. FIRST-AID MEASURES**

Under normal handling and use, exposure to solid forms of this material present few health hazards. Subsequent operations such as grinding, melting or welding may produce potentially hazardous dust or fumes which can be inhaled or come in contact with the skin or eyes.

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: Use may generate dust that may cause eye and respiratory tract irritation. Dust may be harmful by inhalation and ingestion.

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 brushed, 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: Minimize generation of dust. Use appropriate protective equipment to avoid inhalation and eye contact if dust is generated.

Environmental precautions: 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 ³ TWA OSHA PEL (as fume) 5 mg/m ³ TWA ACGIH TLV (respirable fraction)
Petroleum Distillates	5 mg/m ³ TWA OSHA PEL (as oil mist) 5 mg/m ³ TWA ACGIH TLV (as mineral oil)
Drawing Lubricant	None Established

Manganese	5 mg/m ³ Ceiling OSHA PEL 0.02 mg/m ³ TWA (respirable), 0.1 mg/m ³ TWA (inhalable) ACGIH TLV
Silicon	5 mg/m ³ TWA (respirable fraction), 15 mg/m ³ TWA (total dust) OSHA PEL
Chromium	0.5 mg/m ³ TWA OSHA PEL 0.5 mg/m ³ TWA ACGIH TLV
Carbon	5 mg/m ³ TWA (respirable fraction), 15 mg/m ³ TWA (total dust) OSHA PEL
Phosphate	None Established
Borax (s borate compounds)	2 mg/m ³ TWA, 6 mg/m ³ STEL ACGIH TLV (inhalable)
Lime (calcium hydroxide)	5 mg/m ³ TWA (respirable fraction), 15 mg/m ³ TWA (total dust) OSHA PEL 5 mg/m ³ TWA ACGIH TLV
Vanadium	None Established
Phosphorus	None Established
Sulfur	None Established
Lead (lead and inorganic compounds)	0.05 mg/m ³ TWA OSHA PEL 0.05 mg/m ³ TWA ACGIH TLV

Note: Consider also components from base materials and coatings.

Appropriate engineering controls: Ensure adequate ventilation to maintain exposures below occupational limits. Whenever possible the use of local exhaust ventilation or other engineering controls is the preferred method of controlling exposure to airborne dust and fume to meet established occupational exposure limits. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating or smoking. Do not blow dust off clothing or skin with compressed air.

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.): Gray-black wire brush.

Odor: No Odor

Odor threshold: Not applicable	pH: Not applicable
Melting point/freezing point: 2500-2650°F	Boiling Point: Not applicable
Flash point: Non-Combustible	Evaporation rate: Not applicable
Flammability (solid, gas): Not applicable	
Flammable limits: LEL: Not applicable	UEL: Not applicable
Vapor pressure: Not applicable	Vapor density:
Relative density: Not applicable	Solubility(ies): Not soluble
Partition coefficient: n-octanol/water: Not applicable	Auto-ignition temperature: Not applicable
Decomposition temperature: Not applicable	Viscosity: Not applicable

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical stability: Stable.

Possibility of hazardous reactions: None known.

Conditions to avoid: Avoid creating or accumulating fines or dust.

Incompatible materials: Avoid acids.

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

Inhalation, skin, eyes. Product as shipped does not present an inhalation hazard; however subsequent operations may create dusts or fumes which could be inhaled.

Routes of exposure:

Ingestion: None expected under normal use conditions. Swallowing large pieces may cause obstruction of the gastrointestinal tract. May be harmful if swallowed.

Inhalation: Dust may cause respiratory irritation. May be harmful by inhalation. Prolonged inhalation may cause lung damage.

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: Chromium can cause skin and/or respiratory sensitization.

Chronic: Long-term overexposure to dust may cause lung damage (fibrosis) with symptoms of coughing, shortness of breath and diminished breathing capacity. Skin and/or respiratory sensitization may also occur. Chronic effects may be aggravated by smoking. Chronic exposure to manganese may cause brain or nervous system damage. Prolonged exposure to elevated noise levels during operations may affect hearing. 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.

Reproductive Toxicity: Not expected to cause reproductive toxicity.

Germ Cell Mutagenicity: Not expected to be a mutagen.

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:

No ecological data is available for this product. This product contains ingredients that are toxic to aquatic organisms with long-lasting effects. Avoid environmental releases.

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)

California Proposition 65: WARNING! You create dust when you cut, sand, 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

NFPA Rating: Health = 0 Flammability = 0 Instability = 0
HMIS Rating: Health = 0 Flammability = 0 Physical Hazard = 0
 *Chronic health hazard

Date Previous Revision: 3/31/15

Date This Revision: 9/21/15

Revision Summary:

06/26/12: Periodic MSDS review: No changes.

3/31/15: Changed all sections. Updated format to GHS.

9/21/15: New formulation. All sections revised.

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 United Abrasives, Inc., it is the user's obligation to assure safe use of this product.