SAFETY DATA SHEET
Power Wire Brushes – Carbon Steel
SDS #20

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Power Wire Brushes – Carbon Steel

Identified Uses of the Manufactured Article and Uses Advised Against: Abrasive materials.

Details of the Supplier of the Safety Data Sheet
Manufacturer: PFERD INC.
30 Jytek Drive
Leominster, MA01453

Internet: www.pferd.com
E-Mail: Jim.Haglund@pferdusa.com
Information Phone: (978)840-6420
Emergency Telephone Number: (978)840-6420 (8.00 a.m. to 4.30 p.m. Eastern Time)
SDS Date of Preparation: April 2, 2013

2. HAZARDS IDENTIFICATION

This product is gray-black with no odour.

EMERGENCY OVERVIEW

Dust may cause eye and respiratory irritation. Dust particles may cause abrasive injury to the eyes.

Other Hazards

A greater hazard, in most cases, is the exposure to the dust/fumes from the material being brushed and the potential hazard from this exposure must be evaluated.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The components listed below represent the chemical composition of the wire material:

<table>
<thead>
<tr>
<th>Hazardous Component</th>
<th>CAS #</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron</td>
<td>7439-89-6</td>
<td>95-99</td>
</tr>
<tr>
<td>Carbon</td>
<td>7439-44-0</td>
<td>0.01-1.1</td>
</tr>
<tr>
<td>Manganese</td>
<td>7439-96-5</td>
<td>0.25-1.65</td>
</tr>
<tr>
<td>Silicon</td>
<td>7440-21-3</td>
<td>≤1.6</td>
</tr>
<tr>
<td>Chromium</td>
<td>7440-47-3</td>
<td>0.01-1.5</td>
</tr>
<tr>
<td>Phosphorous</td>
<td>7723-14-0</td>
<td>≤0.04</td>
</tr>
<tr>
<td>Sulfur</td>
<td>7704-34-9</td>
<td>0.001-0.035</td>
</tr>
<tr>
<td>Vanadium</td>
<td>7440-62-2</td>
<td>0.01-0.35</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

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

**Most Important symptoms and effects, both 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 any immediate medical attention and special treatment needed**: None known

5. FIRE FIGHTING MEASURES

**Extinguishing Media**: Use any media that is appropriate for the surrounding fire.

**Special Hazards Arising from the Manufactured Article**

**Unusual Fire and Explosion Hazards**: This product is not combustible, however, consideration must be given to the potential fire/explosion hazards from the base material being processed. Many materials create flammable/explosive dusts or turnings when brushed, machined or ground.

**Hazardous Combustion Products**: None known.

**Advice for Fire-Fighters**: None needed.

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**: Notify authorities as required by local, state and federal regulations.

**Methods and Material for Containment and Cleaning Up**: Pick up, sweep up or vacuum any dust, and place in a container for disposal.

**Reference to Other Sections**: Refer to Section 8 for personal protective equipment and Section 14 for proper disposal.

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.

**Conditions for Safe Storage, Including any Incompatibilities**: Store in a dry location.
## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters:

<table>
<thead>
<tr>
<th>Hazardous Component</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Ontario</th>
<th>Québec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron</td>
<td>None Established</td>
<td>None Established</td>
<td>None Established</td>
<td>None Established</td>
</tr>
<tr>
<td>Carbon</td>
<td>None Established</td>
<td>None Established</td>
<td>None Established</td>
<td>None Established</td>
</tr>
<tr>
<td>Manganese</td>
<td>5 mg/m³ Ceiling</td>
<td>0.02 mg/m³ TWA (Respirable)</td>
<td>0.2 mg/m³ TWA</td>
<td>1 mg/m³ TWA 3 mg/m³ STEL</td>
</tr>
<tr>
<td>Silicon</td>
<td>15 mg/m³ (total dust)</td>
<td>5 mg/m³ (respirable) TWA</td>
<td>10 mg/m³ TWA</td>
<td>10 mg/m³ TWA</td>
</tr>
<tr>
<td>Chromium</td>
<td>0.5 mg/m³ TWA</td>
<td>0.5 mg/m³ TWA</td>
<td>None Established</td>
<td>0.5 ppm STEL (fume)</td>
</tr>
<tr>
<td>Phosphorous</td>
<td>None Established</td>
<td>None Established</td>
<td>None Established</td>
<td>0.1 mg/m³ TWA</td>
</tr>
<tr>
<td>Sulfur (as Sulfur Dioxide)</td>
<td>5 ppm TWA</td>
<td>0.25 ppm STEL</td>
<td>2 ppm TWA, 5 ppm STEL</td>
<td>2 ppm TWA, 5 ppm STEL</td>
</tr>
<tr>
<td>Vanadium (as Vanadium pentoxide, as V)</td>
<td>0.5 mg/m³ Ceiling (respirable dust), 0.1 mg/m³ Ceiling (fume) TWA</td>
<td>0.05 mg/m³ TWA</td>
<td>0.05 mg/m³ TWA</td>
<td>0.05 mg/m³ TWA</td>
</tr>
</tbody>
</table>

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

### Exposure Controls

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

**Respiratory Protection:** Use an 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 local regulations for specific standards where appropriate. Selection of respiratory protection depends on the contaminant type, form and concentration. Select and use respirators in accordance with applicable regulations and good industrial hygiene practice.

**Gloves:** 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

### Information on basic Physical and Chemical Properties

**Appearance:** Gray-black solid brushes

**Odor:** None

**Boiling Point:** Not Applicable

**Solubility in Water:** Insoluble

**Specific Gravity:** 7

**pH:** Not Applicable

**Melting/Freezing Point:** Not Applicable

**Flammable Limits:** LEL: Not Applicable

**Odor Threshold:** Not Applicable

**Vapor Pressure:** (mm Hg) Not Applicable

**Vapor Density:** (Air = 1) Not Applicable

**Evaporation Rate:** Not Applicable

**Octanol/Water Partition Coefficient:** Not Available

**Flash Point:** Non-Combustible

**UEL:** Not Applicable
Autoignition Temperature: Not Applicable
Viscosity: Not Applicable
Oxidizing Properties: Not an Oxidizer
Molecular Formula: Mixture
Molecular Weight: Mixture

10. STABILITY AND REACTIVITY

Reactivity: Not reactive
Chemical Stability: Stable
Possibility of Hazardous Reactions: Not expected to occur
Conditions to Avoid: None known.
Incompatible Materials: None known
Hazardous Decomposition Products: Dust from brushing and grinding could contain ingredients listed in Section 3 and other, potentially more hazardous components of the base material being brushed or coatings applied to the base material.

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects:

Ingestion: None expected under normal use conditions. 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 may cause abrasive injury to the eyes.
Skin: None expected under normal use conditions. Rubbing product across the skin may cause mechanical irritation or abrasions.

Acute Toxicity Values:
No data available

Skin corrosion/irritation: Not corrosive or irritating
Eye damage/irritation: May cause eye irritation.
Respiratory irritation: Causes respiratory tract irritation.
Respiratory Sensitization: Not expected to be sensitizing
Skin Sensitization: This material is not known to cause sensitization.
Germ Cell Mutagenicity: Not expected to be a mutagen
Carcinogenicity: None of the components of this product are listed as a carcinogen or potential carcinogen by OSHA, NTP or IARC.
Reproductive Toxicity: Not expected to cause reproductive toxicity.
Specific Target Organ Toxicity:
Single Exposure: No data available
Repeat Exposure: Long-term overexposure to respirable 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. A greater hazard, in most cases, is the exposure to the dust/fumes from the material or paint/coatings being brushed. Most of the dust generated during brushing is from the base material being brushed and the potential hazard from this exposure must be evaluated.

12. ECOLOGICAL INFORMATION

Toxicity
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: No data available

Bioaccumulative Potential: No data available

Mobility in Soil: Not applicable

Results of PBT and vPvB Assessment: Not applicable

Other Adverse Effects: Not applicable

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods:
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

<table>
<thead>
<tr>
<th></th>
<th>14.1 UN Number</th>
<th>14.2 UN Proper Shipping Name</th>
<th>14.3 Hazard Class(s)</th>
<th>14.4 Packing Group</th>
<th>14.5 Environmental Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>US DOT</td>
<td>None</td>
<td>Not Regulated</td>
<td>None</td>
<td>None</td>
<td>No</td>
</tr>
<tr>
<td>Canadian TDG</td>
<td>None</td>
<td>Not Regulated</td>
<td>None</td>
<td>None</td>
<td>No</td>
</tr>
<tr>
<td>EU ADR/RID</td>
<td>None</td>
<td>Not Regulated</td>
<td>None</td>
<td>None</td>
<td>No</td>
</tr>
<tr>
<td>IMDG</td>
<td>None</td>
<td>Not Regulated</td>
<td>None</td>
<td>None</td>
<td>No</td>
</tr>
<tr>
<td>IATA/ICAO</td>
<td>None</td>
<td>Not Regulated</td>
<td>None</td>
<td>None</td>
<td>No</td>
</tr>
</tbody>
</table>

Special Precautions for User: Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations/Legislation Specific for the Manufactured Article:

US Regulations:

SARA Section 311/312 Hazard Categories: Chronic Health

SARA Section 313: Some products contain 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): None.

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.

Canadian Regulations:

Canadian WHMIS Classification: Not a controlled product. This product meets the definition of a "manufactured article" under the WHMIS regulations.
This product has been classified under the CPR and this SDS discloses information elements required by the CPR.

16. OTHER INFORMATION

**NFPA Hazard Rating:**
- **Health:** 1
- **Fire:** 0
- **Reactivity:** 0

**Date Previous Revision:** None
**Date This Revision:** 04/02/2013
**Revision Summary:** New SDS

**Prepared By:** Chandra D Gioiello, CIH IH&SC Inc., Shelton, CT 06484
Dr. Axel Deeg. ADEEGO GmbH, Wildsteig 4A, 42113 Wuppertal, Germany

The preceding information is believed to be correct and current as of the date of preparation of this Safety Data Sheet. Since the use of this information and the conditions of use of this product are not within the control of August Rüggeberg GmbH & Co. KG, it is the user’s obligation to assure safe use of this product.