according to 29 CFR 1910.1200 and ANSI standard Z400.1-2010

Maintenance Brushes (Stainless Steel)

Product number 162

Revision date: Oct/17/2017 Version: 2

Language: en-US,CA

1. Product and company identification

Product identifier

Trade name: Maintenance Brushes (Stainless Steel)

Relevant identified uses of the substance or mixture and uses advised against

General use:

Material removal and/or surface finishing. For industrial purposes only.

Details of the supplier of the safety data sheet

Company name: PFERD INC. Street/POB-No.: 9201 W. Heather Ave. Postal Code, city: Milwaukee, WI 53224, USA WWW: www.pferdusa.com E-mail: sales@pferdusa.com Telephone: 1-800-342-9015 Telefax: 262-255-2840 Department responsible for information: 1-800-342-9015

PFERD CANADA INC. Street/POB-No.: 5570 McAdam Road Postal Code, city: Mississauga, Ontario L4Z 1P1, Canada WWW: www.pferdusa.com E-mail: sales@pferdcanada.ca Telephone: (905) 501-1555 Telefax: (905) 501-1554 Department responsible for information: 1-866-245-1555

Emergency phone number

USA/Canada: 1-800-255-3924

2. Hazards identification

Emergency overview

Appearance:	Physical state at 68 °F (20 °C) and 101.3 kPa: solid Color: gray - metallic (wire Material)
Odor:	odorless
Classification:	Sensitization - skin - Category 1; Carcinogenicity - Category 2; Specific Target Organ Toxicity (Repeated Exposure) - Category 1;
Hazard symbols:	



Signal word: Danger Hazard statements: May cause an allergic skin reaction. Suspected of causing cancer. Causes damage to organs through prolonged or repeated exposure.



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Precautionary statements:

Precautionary statement	
	Obtain special instructions before use.
	Do not breathe dust/fume/gas/mist/vapors/spray.
	Wash hands and face thoroughly after handling.
	Do not eat, drink or smoke when using this product.
	Contaminated work clothing should not be allowed out of the workplace.
	Wear protective gloves/protective clothing/eye protection/face protection.
	IF ON SKIN: Wash with plenty of water/soap.
	IF exposed or concerned: Get medical advice/attention.
	Specific treatment (see ' First aid ' on this label).
	If skin irritation or rash occurs: Get medical advice/attention.
	Wash contaminated clothing before reuse.
	Store locked up.
	Dispose of contents/container to hazardous or special waste collection point.
Additional information	The hazard identification is based on a formalistic procedure as the hazard statements of
	the ingredients are summarized under section 3. This does not correspond to the
	hazardousness of the product itself. 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. This dust may present a fire or dust
	explosion hazard and may present a serious health hazard.

Regulatory status

This material is considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) and WHMIS in Canada.

Hazards not otherwise classified

Mechanical processing can produce particles and dust. Inhalation of dust may cause irritation of the respiratory system. Dust contact with the eves can lead to mechanical irritation. see section 11: Toxicological information

3. Composition / Information on ingredients

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

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Relevant ingredients:

CAS No.	Designation	Content	Classification
CAS 7439-89-6	Iron	< 90 %	not classified
CAS 7440-47-3	Chromium	< 20 %	not classified
CAS 7440-02-0	Nickel	< 15 %	Sensitization - skin - Category 1. Carcinogenicity - Category 2. Specific Target Organ Toxicity (Repeated Exposure) - Category 1. Aquatic toxicity - chronic - Category 3.
CAS 7440-21-3	Silicon	< 5 %	not classified
CAS 7439-96-5	Manganese	< 5 %	not classified
CAS 7439-98-7	Molybdenum	< 2 %	not classified
CAS 7440-44-0	Carbon	< 0.5 %	not classified
CAS 7727-37-9	Nitrogen	< 0.5 %	Compressed Gas. Simple Asphyxiant.
CAS 7723-14-0	Phosphorus	< 0.1 %	not classified
CAS 7704-34-9	Sulfur	< 0.1 %	Skin Irritation - Category 2.

Additional information: The specific identity and/or exact percentage has been withheld as a trade secret.

4. First aid measures		
In case of inhalation:	Provide fresh air. If you feel unwell, seek medical advice.	
Following skin contact:	Remove residues with soap and water. Take off contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.	
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye irritation consult an ophthalmologist.	
After swallowing:	Rinse mouth. Never give anything by mouth to an unconscious person. Seek medical attention.	
Most important symptoms/effects, acute and delayed		
	New source on allorate skin reaction. Causes domage to argons through prolonged or	

May cause an allergic skin reaction. Causes damage to organs through prolonged or repeated exposure.

Information to physician

Treat symptomatically.

5. Fire fighting measures

Flash point/flash point range:

Not combustible

Auto-ignition temperature: No data available

Suitable extinguishing media:

Product is non-combustible. Extinguishing materials should therefore be selected according to surroundings.

Specific hazards arising from the chemical

On heating or in case of fire toxic gases may form.

according to 29 CFR 1910.1200 and ANSI standard Z400.1-2010

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Protective equipment and precautions for firefighters:

Wear self-contained breathing apparatus.

Additional information: Do not allow fire water to penetrate into surface or ground water.

6. Accidental release measures

Personal precautions:	Avoid generation of dust. Do not breathe dust. Provide adequate ventilation. Wear appropriate protective equipment. Avoid contact with the substance. Avoid exposure. Keep unprotected people away.
Environmental precautions:	
	Do not allow to penetrate into soil, waterbodies or drains. In case of release, notify competent authorities.
Methods for clean-up:	Take up mechanically, placing in appropriate containers for disposal.

7. Handling and storage

Handling

Advices on safe handling: Obtain special instructions before use.

Provide adequate ventilation, and local exhaust as needed.

Avoid generation of dust. Do not breathe dust.

Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse.

When using do not eat, drink or smoke.

Wash hands before breaks and after work.

Work place should be equipped with a shower and an eye rinsing apparatus.

Storage

Requirements for storerooms and containers:

Keep container tightly closed and dry.

according to 29 CFR 1910.1200 and ANSI standard Z400.1-2010

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8. Exposure controls / personal protection

Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Туре	Limit value
7439-89-6	Iron	USA: ACGIH: TWA USA: OSHA: TWA	10 mg/m³ (smoke, dust) 10 mg/m³ (Smoke)
7440-47-3	Chromium	Canada, Alberta: OEL 8 hour Canada, BC: OEL TWA Canada, Québec: VEMP USA: ACGIH: TWA USA: NIOSH: TWA USA: OSHA: TWA	0.5 mg/m ³ 0.5 mg/m ³ 0.5 mg/m ³ 0.5 mg/m ³ (inhalable fraction) 0.5 mg/m ³ 0.5 mg/m ³
7440-02-0	Nickel	Canada, Alberta: OEL 8 hour Canada, BC: OEL TWA Canada, Ontario: OEL TWA Canada, Québec: VEMP USA: ACGIH: TWA USA: NIOSH: TWA USA: OSHA: TWA	 1.5 mg/m³ (metal) 0.05 mg/m³ 1 mg/m³ (metal, inhalable fraction) 1 mg/m³ (metal) 1.5 mg/m³ (metal, inhalable fraction) 0.015 mg/m³ 1 mg/m³ (Nickel and compounds)
7440-21-3	Silicon	Canada, Ontario: OEL TWA Canada, Québec: VEMP USA: NIOSH: TWA USA: NIOSH: TWA USA: OSHA: TWA USA: OSHA: TWA	10 mg/m ³ 10 mg/m ³ (inhalable fraction) 10 mg/m ³ inhalable fraction 5 mg/m ³ (respirable fraction) 15 mg/m ³ inhalable fraction 5 mg/m ³ (respirable fraction)
7439-96-5	Manganese	Canada, Alberta: OEL 8 hour Canada, BC: OEL TWA Canada, Québec: VEMP	0.2 mg/m ³ 0.2 mg/m ³ (respirable fraction) 0.2 mg/m ³ (Smoke, inhalable fraction)

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CAS No.	Designation	Туре	Limit value
7439-98-7	Molybdenum	Canada, Alberta: OEL 8 hour	0.5 mg/m ³ compounds, soluble; respirable fraction
		Canada, Alberta: OEL 8 hour	10 mg/m ³ (Metal insoluble compounds total)
		Canada, Alberta: OEL 8 hour	3 mg/m ³ (metal, compounds, insoluble; respirable fraction)
		Canada, BC: OEL TWA	0.5 mg/m ³ compounds, soluble; respirable fraction
		Canada, BC: OEL TWA	10 mg/m ³
			metal and compounds, insoluble; inhalable fraction
		Canada, BC: OEL TWA	3 mg/m ³ metal and compounds, insoluble; respirable fraction
		Canada, Québec: VEMP	10 mg/m ³ compounds, insoluble
		Canada, Québec: VEMP	5 mg/m ³ compounds, soluble
		USA: ACGIH: TWA USA: ACGIH: TWA	0.5 mg/m ³ soluble; inhalable fraction 10 mg/m ³ insoluble; inhalable fraction
		USA: ACGIH: TWA	3 mg/m ³ insoluble; respirable fraction
		USA: OSHA: TWA	15 mg/m ³
		USA: OSHA: TWA	5 mg/m ³
7440-44-0	Carbon	Canada, Alberta: OEL 8 hour	10 mg/m³ (Dust limit value, inhalable fraction)
		Canada, Alberta: OEL 8 hour	3 mg/m ³ (Dust limit value, respirable fraction)
		Canada, BC: OEL TWA Canada, Ontario: OEL TWA	10 mg/m ³ (Dust limit value, inhalable fraction) 10 mg/m ³ (Dust limit value, inhalable fraction)
		Canada, Ontario: OEL TWA Canada, Ontario: OEL TWA	3 mg/m ³ (Dust limit value, respirable fraction)
		Canada, Québec: VEMP	10 mg/m ³ (Dust limit value, inhalable fraction)
		USA: ACGIH: TWA	10 mg/m ³ (Dust limit value, inhalable fraction)
		USA: ACGIH: TWA	3 mg/m ³ (Dust limit value, respirable fraction)
		USA: OSHA: TWA	15 mg/m ³ inhalable fraction
		USA: OSHA: TWA	5 mg/m ³ (respirable fraction)
7723-14-0	Phosphorus	Canada, Alberta: OEL 8 hour	0.1 mg/m ³
		Canada, Québec: VEMP USA: NIOSH: TWA	0.1 mg/m ³
7704 04 0			0.1 mg/m ³
7704-34-9	Sultur	Canada, Alberta: OEL 8 hour	10 mg/m ³

Engineering controls

Provide good ventilation and/or an exhaust system in the work area. See also information in chapter 7, section storage.

Personal protection equipment (PPE)

Eye/face protection:Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI
Z87.1-2010.Skin protection:Wear suitable protective clothing and shoes.
Protective gloves according to OSHA Standard - 29 CFR: 1910.138.

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Respiratory protection:	Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.
General hygiene consider	rations:
	Obtain special instructions before use. Do not breathe dust.
	Avoid contact with skin and eyes.
	When using do not eat, drink or smoke. Change contaminated clothing.
	Wash hands before breaks and after work.
	Work place should be equipped with a shower and an eye rinsing apparatus.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance:	Physical state at 68 °F (20 °C) and 101.3 kPa: solid Color: gray - metallic (wire Material)
Odor:	odorless
Odor threshold:	No data available
pH value:	not applicable
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	Not combustible
Evaporation rate:	No data available
Flammability:	Non-flammable
Explosion limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Density:	No data available
Water solubility:	Insoluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Thermal decomposition:	No data available
Additional information:	No data available

10. Stability and reactivity

Reactivity:	no data available
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous re	eactions: No hazardous reaction when handled and stored according to provisions.
Conditions to avoid:	No data available
Incompatible materials:	No data available

Thermal decomposition: No data available

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11. Toxicological information

Toxicological tests

Toxicological effects:	The statements are derived from the properties of the single components. No toxicological data is available for the product as such.
	Acute toxicity (oral): Lack of data.
	Acute toxicity (dermal): Lack of data.
	Acute toxicity (inhalative): Lack of data.
	Skin corrosion/irritation: Lack of data.
	Serious eye damage/irritation: Lack of data.
	Sensitisation to the respiratory tract: Lack of data.
	Skin sensitisation: Sensitization - skin - Category 1 = May cause an allergic skin reaction.
	Germ cell mutagenicity/Genotoxicity: Lack of data.
	Carcinogenicity: Carcinogenicity - Category 2 = Suspected of causing cancer.
	Reproductive toxicity: Lack of data.
	Effects on or via lactation: Lack of data.
	Specific target organ toxicity (single exposure): Lack of data.
	Specific target organ toxicity (repeated exposure): Specific Target Organ Toxicity
	(Repeated Exposure) -
	Category 1 = Causes damage to organs through prolonged or repeated exposure.
	Aspiration hazard: Lack of data.
Other information:	Chronic toxicity carcinogenic effect:
	Information about Chromium:
	IARC Rating: Group 3 OSHA Carcinogen: not listed
	NTP Rating: not listed
	Information about Nickel:
	IARC Rating: Group 2B
	OSHA Carcinogen: not listed
	NTP Rating: listed

12. Ecological information

Ecotoxicity

Further details: No data available

Mobility in soil

No data available

Persistence and degradability

Further details: No data available

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Additional ecological information

General information: Do not allow to enter into ground-water, surface water or drains.

13. Disposal considerations

Product

Recommendation: Dispose of waste according to applicable legislation.

Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation. Packing can be recycled or disposed of.

14. Transport information

USA: Department of Transportation (DOT)

Proper shipping name: Not restricted

Canada: Transportation of Dangerous Goods (TDG)

Shipping name:	Not restricted	
Sea transport (IMDG)		
Proper shipping name:	Not restricted	
Marine pollutant:	no	

Marine pollutant:

Air transport (IATA)

Proper shipping name: Not restricted

Further information

No dangerous good in sense of these transport regulations.

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15. Regulatory information

National regulations - U.S. Federal Regulations				
Product:	This product is an article as defined by TSCA regulations, and is exempt from TSCA inventory listing requirements.			
Chromium:	Carcinogen Status: IARC Rating: Group 3 OSHA Carcinogen: not listed NTP Rating: not listed Clean Water Act: Priority Pollutant: yes Other Environmental Laws: CERCLA: RQ 5000 lbs. RCRA Hazardous Wastes: Code D007 RCRA Groundwater Monitoring: Methods 6010, 7190, 719 / PQL 70, 500, 10 SARA Title III Section 313, Toxic Release: Conc. 0.1% / Threshold Standard NIOSH Recommendations: Occupational Health Guideline: 0141			
Nickel:	Carcinogen Status: IARC Rating: Group 2B OSHA Carcinogen: not listed NTP Rating: listed Clean Water Act: Priority Pollutant: yes Other Environmental Laws: CERCLA: RQ 100* lbs. RCRA Groundwater Monitoring: Methods 6010, 7520 / PQL 50, 400 SARA Title III Section 313, Toxic Release: Conc. 0.1% / Threshold Standard NIOSH Recommendations: Occupational Health Guideline: 0445*			
Silicon:	NIOSH Recommendations: Occupational Health Guideline: 0554			
Manganese:	Other Environmental Laws: SARA Title III Section 313, Toxic Release: Conc. 1.0% / Threshold Standard NIOSH Recommendations: Occupational Health Guideline: 0379*			
Molybdenum:	NIOSH Recommendations: Occupational Health Guideline: 0433*			
Carbon:	NIOSH Recommendations: Occupational Health Guideline: 0307			

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Phosphorus:	Clean Air Act: Hazardous Air Pollutants: Code X Clean Water Act: Hazardous Substances: RQ 1 lbs. Other Environmental Laws: CERCLA: RQ 1 lbs. Marine Pollutant: listed as severe pollutant. SARA Title III Section 302, EHS: TPQ 100 lbs. / RQ 1 SARA Title III Section 313, Toxic Release: Conc. 1.0% NIOSH Recommendations: Occupational Health Guideline: 0507		andard

National regulations - U.S. State Regulations

- Nickel: California Proposition 65: cancer
- Nitrogen: California Proposition 65 code: not listed Massachusetts Haz. Substance codes: 4 Pennsylvania Haz. Substance code: -Washington Air Contaminant: Simple Asphyxiant

National regulations - Canada

No data available

	16. Other information	
Hazard rating systems:	NFPA Hazard Rating: Health: 2 (Moderate) Fire: 0 (Minimal) Reactivity: 0 (Minimal)	
	HMIS Version III Rating: Health: 2 (Moderate) - Chronic effects Flammability: 0 (Minimal) Physical Hazard: 0 (Minimal) Personal Protection: X = Consult your supervisor	HEALTH*2FLAMMABILITY0PHYSICAL HAZARD0X
Reason of change: Date of first version:	Changes in section 1, telephone Nr. USA General revision May/4/2017	
Department issu	ing data sheet	
Contact person:	see section 1: Department responsible for information	

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products.