

SAFETY DATA SHEET

SECTION 1: Product and Company Identification

- 1.1. Product identifier
Product code **High Speed Steel Saws**
Issue date 10-July-2015
Revised 01-January-2019
Version number 01
- 1.2. Details of the supplier of the safety data sheet
Manufacturer/Supplier
Company name Martindale Electric Co.
Address 1375 Hird Avenue
Cleveland, OH 44107
Telephone 216-521-8567
Email sales@martindaleco.com
- 1.3. Emergency telephone
Number 216-521-8567

Section 1 notes: These parts are sold as articles and as such fall under the 'article exemption' in OSHA's Hazard Communication Standard (29 CFR 1910.1200). The following information is provided in the event that any cutting or grinding on the part is undertaken.

SECTION 2: Hazards identification

- 2.1. Steel products in their usual physical form do not pose any health hazards. However, when subjected to welding, burning, sawing, brazing, grinding, etc. potentially hazardous fumes or dust may be generated.
- 2.2. If acute overexposure to fumes occurs, remove victim to fresh air. Then, seek medical assistance.
- If acute overexposure to dust occurs:
For eyes – Flush well with running water. Seek medical attention.
For skin – Brush off excessive dust, wash area well with soap and water.

SECTION 3: Composition/information on ingredients

3.1. Mixtures

General information

Chemical name	% Concentration	CAS-No.
Iron	< 85.0	1309-37-1
Carbon	< 2.0	7440-44-0
Chromium	< 5.0	7440-47-3
Cobalt	< 10.0	7440-48-4
Manganese	< 1.0	7439-96-5
Molybdenum	< 6.0	7439-98-7
Nickel	< 1.0	7440-02-0
Phosphorous	< 0.030	7723-14-0
Silicon	< 1.0	7440-21-3
Sulfur	< 0.030	7704-34-9
Tungsten	< 7.0	7440-33-7

Note: The above listing is a summary of the principle elements. Various grades of metal will contain varying amounts of these elements. Other elements may also be present in minute amounts. Slight changes in the above mentioned values may apply.

SECTION 4: First aid measures

4.1. Description of first aid measures

If inhaled:

Remove to fresh air and seek medical attention.

In case of skin contact:

If irritation occurs, remove clothing, wash with soap and water. If condition persists, seek medical attention.

In case of eye contact:

Immediately flush with water to remove harm; seek medical attention.

If swallowed:

If significant amounts of metal are ingested, seek medical attention.

SECTION 5: Firefighting measures

5.1. Fire Hazard Data:

Steel products will not burn or explode. Dust from this product can form explosive mixtures in air. Explosive concentrations are usually very thick dust clouds.

Flash Point: Not applicable

Extinguishing Media: Not applicable

Special Fire Fighting Procedures: Not applicable

Unusual Fire and Explosion Hazards: Not applicable

SECTION 6: Accidental release measures

6.1. Not applicable. Steel products will not spill or leak.

SECTION 7: Handling and storage

7.1. Handling

Use good housekeeping practices to prevent accumulations of dusts and to keep airborne dust concentrations at a minimum.

7.2. Waste disposal procedure

Metal working wastes may be classified as "hazardous waste" or as some other form of regulated waste. Consult with federal, state or local officials regarding waste determinations and proper disposal.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Component	CAS-No.	Value	Control parameters	Basis
Iron (as oxide)	1309-37-1	TWA	10 mg/m ³	USA. Occupational Exposure Limits (OSHA)
Carbon	7440-44-0			
Chromium (III)	7440-47-3	TWA	0.5 mg/m ³	USA. Occupational Exposure Limits (OSHA)
Cobalt	7440-48-4	TWA	0.1 mg/m ³	USA. Occupational Exposure Limits (OSHA)
Manganese	7439-96-5			
Molybdenum	7439-98-7	TWA	15 mg/m ³	USA. Occupational Exposure Limits (OSHA)
Nickel	7440-02-0	TWA	1 mg/m ³	USA. Occupational Exposure Limits (OSHA)
Phosphorous	7723-14-0			
Silicon	7440-21-3	TWA	15 mg/m ³	USA. Occupational Exposure Limits (OSHA)
Sulfur	7704-34-9			
Tungsten	7440-33-7			
Vanadium	7440-62-2			

8.2. Exposure controls

Appropriate Engineering Controls: Handle in accordance with good industrial hygiene and safety practice. Wash hand before breaks and at the end of workday.

8.3. Personal Protective Equipment:

Respiratory protection: If fumes, misting or dust conditions occur, consult a professional industrial hygienist. Provide NIOSH approved respirators.

Ventilation: Use general or local exhaust ventilation to keep airborne concentrations of dust and fumes below the TLV. Consult a professional industrial hygienist.

Protective gloves: Gloves and barrier creams may be necessary to prevent skin sensitization and dermatitis (inflammation of the skin).

Eye protection: Safety glasses should be worn when grinding or cutting; face shields should be worn when welding or burning.

Other protective clothing: Use appropriate clothing such as welders aprons and gloves, when welding or burning as required for specific work or jobs.

Work/Hygiene practices: Evaluate jobs down with this product and meet requirement of all applicable environmental standards.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance	Solid
b) Odor	Odorless metal
c) Percent volatile by volume	Not applicable
d) Acidity/Alkalinity	Not applicable
e) Melting point	2500 degrees F – 2800 degrees F
f) Boiling point	5000 degrees F
g) Evaporation rate	Not applicable
h) Specific gravity	7.4 – 8.7 (60 degrees F)
i) Vapor pressure	Not applicable
j) Vapor density	Not applicable
k) Water solubility	Insoluble
l) Flash point	Not applicable

SECTION 10: Stability and reactivity

10.1. Chemical stability
Stable

10.2. Incompatibility (Materials to avoid)
Reacts with strong acids to generate hydrogen gas

10.3. Hazardous decomposition or byproducts
Metallic oxides

10.4. Hazardous polymerization
Will not occur

SECTION 11: Toxicological information

11.1. Steel products in their usual physical form do not pose any health hazards. However, when subjected to welding, burning, sawing, brazing, grinding, etc. potentially hazardous fumes or dust may be generated. The above operations should be performed in well ventilated areas. The primary route of exposure is from inhalation of fumes and dusts. The effects of overexposure to the various metal fumes and dusts which may be generated from this product and the associated health effects from overexposure are as follows:

Effect of Acute Exposures: Excessive inhalation of metallic fumes and dusts may be irritating to respiratory passages. Excessive inhalation of fumes from many metals can produce an acute reaction known as “metal fume fever”. Symptoms consist of chills and fever (very similar and easily confused with flu symptoms), a metallic taste in the mouth, and dryness and irritation of the throat. The symptoms come on a few hours after excessive exposures and usually last from 12 to 48 hours. Long term effects from metal fume fever have not been noted. Iron oxide, copper and manganese have been associated with causing metal fume fever. High concentrations of metallic fumes and dusts can result in irritation of the eyes, skin, mucous membranes, and other forms of physical irritation.

Effect of Chronic Exposures: Chronic inhalation of high concentrations of metallic fumes and dusts are associated with the following condition: benign pneumoconiosis, pneumonia and lung damage, pulmonary fibrosis, and other respiratory and CNS conditions.

SECTION 12: Ecological information

12.1. Not available

SECTION 13: Disposal considerations

13.1. Waste treatment methods: Dispose of in accordance with appropriate governmental regulations. Maybe sold as scrap or reclaim.

SECTION 14: Transport information

DOT (US)	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods
Packaging group	Not regulated

SECTION 15: Regulatory information

SARA 302 Components

SARA 302: As an article, no chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: As an article, no components are subject to reporting levels established by SARA Title III, Section 313.

STATE

REVISION DATE

California OELs/PELs

2015-01-01

Carbon, Chromium, Cobalt, Iron, Manganese, Molybdenum, Nickel, Tungsten

Connecticut Hazardous Material Survey

Chromium, Iron, Nickel

Illinois Chemical Safety Act

1998-08-14

Chromium, Nickel

Indiana Occupational Health and Safety Standards

1998-08-14

Carbon, Chromium, Cobalt, Iron, Manganese, Molybdenum, Nickel, Silicon

Kentucky Occupational Health and Safety Standards

Carbon, Chromium, Cobalt, Iron, Manganese, Molybdenum, Nickel, Silicon

Maine Chemicals of Concern List

2012-07-01

Cobalt, Nickel

Massachusetts Right-to-Know Substance List

Carbon, Chromium, Cobalt, Iron, Manganese, Molybdenum, Nickel, Silicon, Tungsten, Vanadium

Minnesota Hazardous Substances List

2008-06-11

Carbon, Chromium, Cobalt, Iron, Manganese, Molybdenum, Nickel, Silicon, Tungsten

New Jersey Right-to-Know Hazardous Substance List 2010

Carbon, Chromium, Cobalt, Iron, Manganese, Molybdenum, Nickel, Silicon, Tungsten, Vanadium

New York City Community Right-to-Know Hazardous Substance List

Chromium, Cobalt, Iron, Manganese, Molybdenum, Nickel, Tungsten, Vanadium

Pennsylvania Right-to-Know Hazardous Substances

Carbon, Chromium, Cobalt, Iron, Manganese, Molybdenum, Nickel, Silicon, Tungsten, Vanadium

Rhode Island Hazardous Substances Right-to-Know Act

2011-07

Chromium, Cobalt, Manganese, Nickel, Vanadium

Tennessee OELs

2008-06

Carbon, Chromium, Cobalt, Iron, Manganese, Molybdenum, Nickel, Silicon, Tungsten

Texas Effects Screening Levels

2014-03-17

Carbon, Chromium, Cobalt, Iron, Manganese, Molybdenum, Nickel, Silicon, Vanadium

Vermont Chemicals of High Concern to Children 2014-06-10

Cobalt

Washington Chemicals of High Concern to Children 2013-10-22

Cobalt, Molybdenum

California Prop. 65 Components

This product does contain chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: Other information

HMIS Rating

Health Hazard: 1

Flammability: 0

React: 0

Further Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Martindale Electric Co. and its affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

Preparation Information

Martindale Electric Co.

216-521-8567