

Material Safety Data Sheet

Carbon, High Strength Low Alloy

QUICK IDENTIFIER
Common Name: (used on label and list)

May be used to comply with OSHA's Hazard Communication Standard, 29CFR 1910.1200. Standard must be consulted for specific requirements.

000321

SECTION 1 -

Manufacturer's Name: Phoenix Steel Corporation

Address: 4001 Philadelphia Pike
City, State, and ZIP: Claymont, Delaware 19703

Emergency Telephone No.:
Other Information Calls: (302) 798-1411

Signature of Person Responsible for Preparation (Optional):
Date Prepared: March 21, 1986

SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY

Hazardous Component(s) (chemical & common names)	% weight	OSHA PEL	ACGIH TLV	Other Exposure Limits	% (optional)	CA NO
Iron	Main Ingredient	10 mg/m3	10 mg/m3			1309-37
		(as Iron Oxide Fume)	(as Iron Oxide Fume)			(as Iron Oxide)
Manganese	.30-1.65	5 mg/m3	5 mg/m3			7439-96-5
		(ceiling dust)	1 mg/m3 fume			
Chromium	0 - .80	1 mg/m3	0.5 mg/m3			7440-47-3
Nickel	0-.60	1 mg/m3	1 mg/m3			7440-02-0
Arsenic	0- .025	0.5 mg/m3	0.2 mg/m3			7440-38-2
Cadmium	0-.010	0.1 mg/m3	0.5 mg/m3			7440-43-9
Carbon	0-.60	0.3 mg/m3 (dust) 3.5 mg/m3	3.5 mg/m3 as carbon			7440-44-0
				black		

SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point: N/A

Specific Gravity (H₂O=1): 7.6-8.16

Vapor Pressure (mm Hg): N/A

Vapor Density (Air = 1): N/A

Reactivity in Water: N/A

Reactivity in Air: N/A

Appearance: Gray/No Odor

Melting Point: approx. 2800°-2900° F

SECTION 4 - FIRE & EXPLOSION DATA

Flash Point: N/A

Flammable Limits in Air % by Volume: LEL Lower: N/A, UEL Upper: N/A

Auto-ignition Temperature: N/A

Extinguisher Media: N/A

Special Fire Fighting Procedures: N/A

Unusual Fire and Explosion Hazards: None present in product as sold. Fine metal particles which are produced during machining, sawing, grinding, etc. if present in high concentrations may present an explosion hazard. Good housekeeping and adequate ventilation are recommended.

SECTION 5 - PHYSICAL HAZARDS (REACTIVITY DATA)

Stability Unstable Stable Conditions to Avoid

Incompatibility (Materials to Avoid)

Hazardous Decomposition Products

Hazardous Polymerization May Occur Will Not Occur Conditions to Avoid

SECTION 6 - HEALTH HAZARDS SEE ATTACHMENT

1. Acute Irritation of eyes, nose, throat, mucous membranes, metallic taste in mouth. Possible dermatitis, headaches, asthma, vomiting. Signs and Symptoms of Exposure SEE ATTACHED

Medical Conditions Generally Aggravated by Exposure Skin disorders and respiratory tract irritation.

Chemical Listed as Carcinogen or Potential Carcinogen NICKEL Chromium National Toxicology Program Yes No I.A.R.C. Monographs Yes No OSHA Yes No

Emergency and First Aid Procedures Move persons affected to fresh air. Wash contaminated skin with soap and water. If condition persists, consult a physician.

ROUTES OF ENTRY

- 1. Inhalation In case of excessive exposure, move to fresh air. Get medical attention.
2. Eyes Flush with water to remove particulate. Get medical attention.
3. Skin Brush off excess dust. Wash area well with soap and water.
4. Ingestion Not applicable.

SECTION 7 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be Taken in Handling and Storage N/A

Other Precautions SEE ATTACHMENT

Precautions to be Taken in Case of Fire, Release or Spilled N/A

Consult federal, state, and local regulations; Sell as scrap.

SECTION 8 - SPECIAL PROTECTION INFORMATION/CONTROL MEASURES

Respiratory Protection (Specify Type) See above, Section 7.

Ventilation Local Exhaust As required Mechanical Recommended N/A Other N/A

Protective Gloves See above, Section 7 Eye Protection See above, Section 7.

Other Protective Clothing or Equipment See above, Section 7.

Work Hygiene Practices Use good housekeeping practices, good personal hygiene and safe work practices.

IMPORTANT Do not leave any blank spaces. If required information is unavailable, unknown, or does not apply, so indicate.

Attachment to Section 6 - HEALTH HAZARDS

Inhalation, Skin Contact, Skin Absorption, Eye Contact, Ingestion -
Note: Steel products in the natural state do not present an inhalation, ingestion or contact hazard. However, subsequent operations such as burning, welding and grinding may result in the following effects if the PEL's listed in Section II of this MSDS are exceeded.

Attachment to Section 6 - CHRONIC HEALTH HAZARDS

Iron Oxide - Irritation of eyes, nose and throat, pulmonary effects, siderosis

Manganese - Irritation of eyes, nose and throat, bronchitis, pneumonitis, lack of coordination

Chromium - Various forms of dermatitis, inflammation and/or ulceration of upper respiratory tract and possibly cancer of the nasal passages and lungs. Based on available information, there does not appear to be any evidence that exposure to welding fume induces human cancers.

Nickel - same as Chromium

Cadmium fume - pulmonary emphysema

Attachment to Section 7 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Use general and local exhaust ventilation to keep airborne concentrations of dust and fumes below the TLV/s and PEL's listed in Section II, INGREDIENTS. Employees should wear MSHA or NIOSH approved respirators for protection against high concentrations or airborne dust or fumes.

Full protective clothing should be worn by workers exposed to heavy concentrations of dust.

Gloves and barrier cremes may be necessary to prevent skin sensitization and dermatitis.

Approved safety glasses with sideshields or goggles should be worn when working with material. Approved steel toed shoes, with metatarsal guards, should be worn for foot protection.