

STEEL

I. PRODUCT IDENTIFICATION

Distributor: Joseph T. Ryerson & Son, inc.
Address: 2621 W. 15th Place
Chicago, Illinois 60608

Emergency Telephone: (312) 762-2121

Chemical Name and Synonyms: STEEL

Chemical Family: Metals

Formula: Not Applicable

II. PRODUCT DESCRIPTION AND HAZARDOUS INGREDIENTS/IDENTITY INFORMATION:

See Chart Inside For Listing

III. PHYSICAL DATA

Melting Point F (C): Greater Than 2800 (1540)

Vapor Pressure: Not Applicable

Vapor Density (Air = 1): Not Applicable

Solubility in Water: Negligible

Appearance and Odor: Grayish to silvery odorless sheet, strip, plate, bar, structural shapes, pipe and tubing

Specific Gravity ($H_2O = 1$): Greater Than 7

% Volatile by Volume (%): Not Applicable

Evaporation Rate: Not Applicable

IV. FIRE AND EXPLOSION HAZARD DATA

Flash Point F (C): Not Applicable

Extinguishing Media: Use methods applicable to surrounding area.

Flammable Limits: Not Applicable

Unusual Fire and Explosion Hazards: None

Special Fire Fighting Procedures: Use self-contained breathing apparatus for protection against degradation products and fire fighting. technique or agent(s) applicable to surrounding materials.

DISCLAIMER

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The information contained in this Material Safety Data Sheet (MSDS) is believed to be correct, but no representations, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications, hazards connected with the use of the material or the results to be obtained from the use thereof. User assumes all risk and liability of any use, processing or handling of any material. Variations in methods, conditions, equipment used to store, handle or process the material and hazards connected with the use of the material are solely the responsibility of the user and remain at its sole discretion.

As sold, the product described in this is considered by Ryerson to be an "article" within the meaning of Title 29 of the Code of Federal Regulations, Section 1910.1200 *et seq.* This MSDS is intended to be used solely for the purpose of satisfying informational requests made pursuant to that requirement. It is not intended to preempt, replace or expand the terms contained in Ryerson Conditions of Sale. Compliance with all applicable federal, state and local laws and regulations remains the responsibility of the user, and the user has the responsibility to provide a safe workplace, to examine all aspects of its operation, and to determine if or where precautions, in addition to those described herein, are required.

Applicable Statutory or Recommended Occupational Exposure Limits: No Threshold Limit Value (TLV) or Permissible Exposure Limit (PEL) exists for steel. See chart inside for listing of the individual constituents.

Effects of Overexposure:

- Acute** - Dust or fume may cause irritation to the eyes, nose, or throat; leave a metallic taste in the mouth; result in metal fume fever; or produce flu-like symptoms.
- Chronic** - Aluminum: May initiate fibrotic changes to lung tissue
Bismuth: No chronic debilitating symptoms indicated from metal
Boron: No chronic debilitating symptoms indicated
Chromium: Skin ulceration, irritative dermatitis, allergic reaction, ulceration of the mucous membranes, perforation of the nasal septum, bronchial carcinoma, adenocarcinoma, mutagen(?)
Listed NTPARC and IARC Monographs
Copper: No chronic debilitating symptoms indicated
Iron: Siderosis
Lead: Anemia, urinary dysfunction, metallic taste in mouth, weakness, constipation, nausea, nervous disorder
Manganese: Bronchitis, pneumonitis, lack of coordination
Molybdenum: Morphological changes in the liver, kidneys, and spleen, anemia, diarrhea, bone deformity and growth retardation
Nickel: Inflammation of respiratory tract, pneumoconiosis. Skin sensitizer. Certain nickel compounds can cause cancer. Listed NTPARC and IARC Monographs
Phosphorous: Necrosis of the mandible
Sulfur (as sulfur dioxide): Edema of the lungs
Tellurium: Garlic odor of breath and perspiration, metallic taste in mouth, dryness of the mouth, inhibition of sweat function, anorexia, nausea
Titanium: No chronic debilitating symptoms indicated
Vanadium: Emphysema, pneumoconiosis
Zinc: Chromosomal anomalies in leukocytes reported: Arthritis, lameness and inflammation of the gastrointestinal tract reported from animal studies

Emergency and First Aid Procedures:

In the event of acute exposure, remove to fresh air, administer oxygen, and seek a physician's assistance,

VI. REACTIVITY DATA

Stability: Considered Stable

Incompatibility: Not incompatible with materials

Hazardous Polymerization: Not Applicable

Hazardous Decomposition Products: Not Applicable

Conditions to Avoid: May liberate metal fumes, metal oxides, or other oxides if exposed to elevated temperatures.

VII. SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled: Not Applicable

Waste Disposal Method: This material may be reclaimed for reuse

VIII. SPECIAL PROTECTION INFORMATION

If operations are such that atmospheric levels of contaminants exceed prescribed limits, provide local exhaust ventilation and/or adequate respiratory protection. Consult your regional codes or code of Federal Regulations, Title 29, Part 1910.252, Welding, Cutting and Brazing, 1910.134, Respiratory Protection, and 1910-Subpart Z, Toxic and Hazardous Substances.

IX. SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing: Not Applicable

Other Precautions: Not Applicable