



Steel 0509V

Material Safety/Health Data Sheet

W-434-8-84

 DATE
 November 15, 1984

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MANUFACTURER'S NAME & ADDRESS

LTV Steel Company P.O. Box 6778, Cleveland, Ohio 44101 - B-LINE SYSTEMS

NAME & TITLE OF INDIVIDUAL SUPPLYING INFORMATION

T.M. Civic Manager Environmental Health

AREA CODE & PHONE NO
(216) 622-5242AREA CODE & LTV EMERGENCY PHONE NO.
(216) 622-5000

PRODUCT NAME/TRADE NAME

Hot/Cold Rolled Stainless Steel - Bar & Wire

CHEMICAL NAME & SYNONYMS

Example: AISI 301, 303 Set, 347**, PH 17-4***, CrMoV****

RECOMMENDED USE

NOTE: Ingredients and % wt. vary according to order specification

CAS# % wt.

Permissible Exposure Limits

Units

Base Metal: Iron 1309-37-1

39-01

PEL as Oxide Fume

10 mg/M³

Alloys:

Carbon

7440-44-0

.01 - .25

None Listed

Manganese

7439-96-5

2.0 max.

PEL(c) as Manganese

5 mg/M³

Phosphorus

7723-14-0

.001 - .2

PEL as Phosphorus (Yellow)

.1 mg/M³

Sulfur

7704-34-9

.001 - .15

PEL as Sulfur Dioxide

13 mg/M³

Silicon

7740-21-3

1.0 max.

None Listed

Chromium

7740-47-3

12 - 26

PEL - Soluble Chromic/
Chromous Salts.5 mg/M³

Nickel

7740-02-0

6 - 22

PEL as Nickel
- Chrome & Insoluble Salts1 mg/M³

Selenium

7782-49-2

.15 - .30

PEL as Selenium

.2 mg/M³Columbium/
Tantalum

7440-25-7

10 x Carbon %wt PEL as Tantalum

5.0 mg/M³

Copper

7440-50-8

.04 - 4

PEL as Copper

.2 mg/M³

Vanadium

7440-6-22

.07 - .3

PEL as Vanadium Pentoxide-Dust
-Fume.5 mg/M³

Coatings: Optional: Petroleum oil, dry lube (lime or borax).

Note: Use gloves when handling to prevent skin irritation.

1. FIRST AID:

In case of excessive exposure, remove to fresh air, administer oxygen, and seek physician's assistance.

2. NOTES TO PHYSICIAN:

SPECIFIC TYPES & KINDS

1. RESPIRATORY PROTECTION

2. PROTECTIVE CLOTHING

3. GLOVES

4. EYE PROTECTION

5. VENTILATION REQUIREMENTS

NIOSH approved dust/mist/fume respirator if OSHA PEL is exceeded

Depending on use, consult local, state and federal codes for appropriate selection

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NOTE: Grinding, welding, sawing, brazing, and grinding may result in exposure to dusts and fumes. See Section II.

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(1) VAJON EXPOSURE HAZARD

<input checked="" type="checkbox"/> INHALATION	<input type="checkbox"/> SKIN CONTACT	<input type="checkbox"/> SKIN ABSORPTION	<input type="checkbox"/> EYE CONTACT	<input type="checkbox"/> INGESTION
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Effects of Overexposure —

ACUTE:

Iron (Iron-oxide) - Irritation of eyes, nose, throat, metallic taste in mouth, or metal fume fever.
 Manganese - Irritation of eyes, nose, throat, metallic taste in mouth, or metal fume fever.
 Chromium - Irritation of eyes, nose and lungs; dermatitis.
 Nickel - Irritation of eyes, nose and lungs; dermatitis.
 Selenium - Irritation of eyes, nose, throat, metallic taste in mouth, or metal fume fever.
 Copper - Irritation of eyes, nose, throat, metallic taste in mouth, or metal fume fever.
 Vanadium - Irritant to conjunctivae and respiratory tract (greenish-black discoloration of tongue and shortness of breath).

CHRONIC:

Iron (Iron-oxide) - Pulmonary effects, siderosis.
 Manganese - Bronchitis, pneumonitis, lack of coordination.
 Chromium - Various forms of dermatitis, inflammation and/or ulceration of upper respiratory tract, and possibly cancer of nasal passages and lungs. Based on available information, there does not appear to be any evidence that exposure to welding fume induces human cancer.
 Nickel - SAME AS CHROMIUM
 Selenium - Nasal and bronchial irritation, gastro-intestinal disturbances, garlic odor of breath.
 Copper - Pulmonary effects.
 Vanadium - No reported cases of exposure to vanadium.

VII. FIRE & EXPLOSION HAZARD DATA		VIII. REACTIVITY DATA	
1. Flash Point—NA 2. Lower Explosive Limit—NA 3. Upper Explosive Limit—NA 4. Extinguishing Media—NA 5. Special Fire Fighting Precautions—NA		Stable — Yes Incompatibility — None Products of Decomposition: 1. Metal fume: Iron-oxide, 2. Nickel, Chromium, Manganese, 3. Vanadium Pentoxide, 4. Molybdenum	
		I. SPECIAL PRECAUTIONS	II. SPILL & LEAK PROCEDURE
		1. Handling Storage—NA 2. Welding & Cutting—Adequate ventilation and/or approved respiratory protection should be provided if permissible exposure limits are exceeded 3. Other Precautions—NA	1. Clean up—NA 2. Waste Disposal—NA

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