



Steel 0552V

Material Safety/Health Date Sheet

W 438 8-84

DATE
December 20, 1984

195

MANUFACTURER'S NAME & ADDRESS
LTV Steel Company P.O. Box 8778 Cleveland, Ohio 44101 - B-LINE SYSTEMS

NAME & TITLE OF INDIVIDUAL SUPPLYING INFORMATION
T.M. Civic Manager Environmental Health

AREA CODE & PHONE NO
(216) 622-5242

PRODUCT NAME/TRADE NAME
Electro-Galvanized Steel

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

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

CAS#	% wt.	Permissible Exposure Limits	Units
------	-------	-----------------------------	-------

Base Metal: Iron 1309-37-1 PEL as Oxide Fume 10 mg/M³

Alloys:

Carbon	7440-44-0	.08 max.	None Listed
Manganese	7439-96-5	.25 - .40	PEL(c) as Manganese
Phosphorus	7723-14-0	.04 max.	PEL as Phosphorus (Yellow)
Sulfur	7704-34-9	.05 max.	PEL as Sulfur Dioxide
Copper (if appl.)	7440-50-8	.20 - .40	PEL as Copper

Coatings: Zinc 1314-13-2 .1 max. PEL as Zinc Oxide 5 mg/M³

Optional: Electro Paintlok^R - Phosphate treated, rinse with light chromate.
Electro Zincbond^R - Rinse with light chromate.
Electro Flashcote^R - Phosphate treated, final rinse with light chromate
011 - Surface coating of petroleum oil.
Grease Edge - Edge coating of petroleum grease.
Note: Use gloves to prevent skin irritation.

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

2. NOT A PHYSICIAN:

- PROTECTIVE MEASURES
1. RESPIRATORY PROTECTION
 2. PROTECTIVE CLOTHING
 3. GLOVES
 4. EYE PROTECTION
 5. VENTILATION REQUIREMENTS

NOTE: Approved respirators must be used in accordance with manufacturer's instructions.

195

PHYSICAL DATA

1. BOILING POINT—NA
2. VAPOR PRESSURE—NA
3. VAPOR DENSITY—NA
4. SOLUBILITY IN WATER—NA
5. SPECIFIC GRAVITY—7
6. % VOLATILE BY VOLUME—NA
7. EVAPORATION RATE—NA
8. AUTO IGNITION TEMP.—NA
9. APPEARANCE & ODOR
gray-black & odorless
10. PHYSICAL STATE—SOLID
pH—NA

EMERGENCY MEDICAL PROCEDURES

SAFETY DATA SHEET REQUIREMENTS

steel products in the natural state do not present an inhalation, ingestion or contact hazard. However, upon burning, welding, sawing, brazing, and grinding may result in the following effects if exposures exceed permissible limits as listed in Section II.

195

(1) MAJOR EXPOSURE HAZARD

INHALATION SKIN CONTACT SKIN ABSORPTION EYE CONTACT INGESTION

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.

Copper - Irritation of eyes, nose, throat, metallic taste in mouth, or metal fume fever.

Zinc - Short term flu-like symptoms (metal fume fever). May include fever, chills, nausea, vomiting; appears 4 - 12 hours after exposure; dermatitis (oxidepox).

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.
 Copper - Pulmonary effects.
 Zinc - None reported.

VI. HEALTH HAZARD DATA		VII. REACTIVITY DATA	
<p>1. Flash Point—NA</p> <p>2. Lower Explosive Limit—NA</p> <p>3. Upper Explosive Limit—NA</p> <p>4. Extinguishing Media—NA</p> <p>5. Special Fire Fighting Precautions—NA</p>		<p>Stable — Yes</p> <p>Incompatibility — None</p> <p>Products of Decomposition:</p> <p>1. Metal fume; Iron-oxide,</p> <p>2. Manganese, zinc-oxide</p> <p>3.</p> <p>4.</p>	
		<p>1. Clean up—NA</p> <p>2. Waste Disposal—NA</p>	<p>1. Handling Storage—NA</p> <p>2. Welding & Cutting—Adequate ventilation and/or approved respiratory protection should be provided if permissible exposure limits are exceeded.</p> <p>3. Other Precautions—NA</p>

195