

MAAS-HANSEN STEEL CORPORATION

Material Safety Data Sheet

ISSUE DATE: 5/27/86
 REVISED:

I. IDENTIFICATION

Product NAME: Galvanized Sheet--Hot dipped & Electrolytic Coated

CAS NO.: 65997-19-5

(213) 583-6321

INFORMATION & EMERGENCY TELEPHONE NUMBERS

II. INGREDIENTS AND RECOMMENDED OCCUPATIONAL EXPOSURE LIMIT

BASE METAL, ALLOYING ELEMENTS AND METALLIC COATINGS	%WEIGHT	OSHA PEL	ACGIH TLV
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BASE METAL: Iron	BALANCE	10 mg/M ³ for iron oxide fume	5 mg/M ³ for iron oxide fume
Alloying Elements: Carbon	.005/.60	None established	None established
Manganese	.05/1.50	(c) 5 mg/M ³	(c) 5 mg/M ³ - dust
Phosphorus	.15 max	None for inorganic phosphates	None for inorgan. phosphates
Sulfur	.05 max	13 mg/M ³ as SO ₂	5 mg/M ³ as SO ₂
Aluminum	.10 max	None established	10 mg/M ³
Metallic Coating: Zinc	.10 max	5 mg/M ³	10 mg/M ³ -Total ZnO dust
Aluminum	0.04 max	None established	5 mg/M ³ -Respirable ZnO dust & fume
Antimony	0.02 max	0.5 mg/M ³	10 mg/M ³
Lead	0.02 max	0.05 mb/M ³	0.5 mg/M ³
Iron	0.1/1.5	10 mg/M ³ for iron oxide fume	0.15 mg/M ³
			5 mg/M ³ for iron oxide fume

(c) denotes "ceiling limit" which is not to be exceeded at any time

Oil coating may be used
 Product may have chromate or phosphate-type surface passivation treatment

NOTE: All commercial metals contain small amounts of various elements in addition to those specified. These small quantities, frequently referred to as "trace" or "residual" elements, generally originate in the raw materials used.

III. PHYSICAL DATA

MELTING POINT: 2750 F
 BASE METAL: 2750 F
 METALLIC COATING: 800-900 F
 APPEARANCE: Metallic Gray, No Odor
 AND ODOR: No Odor

IV. FIRE AND EXPLOSION HAZARD DATA

STEEL PRODUCTS IN THEIR SOLID STATE PRESENT NO FIRE OR EXPLOSION HAZARD.

V. REACTIVITY DATA

Stable under normal conditions of use, storage, and transportation. Will react with strong acid to liberate hydrogen. At temperatures above the melting point, may liberate fumes containing oxides of iron and alloying elements.

VI. HEALTH HAZARD DATA

NOTE: Steel products under normal conditions do not present an inhalation, ingestion or contact health hazard. However, operations, such as, burning, welding, brazing, grinding, sawing, and possibly machining, etc., which results in elevating the temperature of the product to or above its melting point or results in the generation of airborne particulates, may present health hazards.

EFFECTS OF OVEREXPOSURE:

MAJOR EXPOSURE HAZARD

INHALATION
 SKIN CONTACT
 EYE CONTACT
 INGESTION

Chronic inhalation of high concentrations of iron oxide fumes or dusts may lead to a benign pneumoconiosis (siderosis). Inhalation of high concentrations of ferric oxide may possibly enhance the risk of lung cancer development in workers exposed to pulmonary carcinogens.

The inhalation of high concentrations of freshly formed oxide fumes and dusts of Manganese, Copper, Lead and/or Zinc in the respirable particle size range can cause an influenza-like illness, termed metal fume fever. Typical symptoms last 12 to 48 hours and are characterized by metallic taste in mouth, dryness and irritation of the throat, followed by weakness, muscle pain, fever and chills.

EMERGENCY AND FIRST AID PROCEDURES: For overexposure to airborne fumes and particulates, remove exposed person to fresh air. If breathing is difficult or has stopped, administer artificial respiration or oxygen as indicated. Seek medical attention promptly.

Treat metal fume fever by bed rest, and administer a pain and fever reducing medication.

VII. SPECIAL PROTECTION INFORMATION

RESPIRATORY: NIOSH/MSHA-approved dust and fume respirators should be used to avoid excessive inhalation of particulates. Appropriate respirator selection depends on the magnitude of exposure.

SKIN: Protective gloves should be worn as required for welding, burning or handling operations.

EYE: Use safety glasses or goggles as required for welding, burning, brazing, grinding or machining operations.

VENTILATION: Local exhaust ventilation should be provided when welding, burning, brazing, grinding or machining to prevent excessive dust or fume exposure.

OTHER PROTECTIVE EQUIPMENT: Depending upon the conditions of use and specific work situations, additional protective equipment and/or clothing may be required to control exposures.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Operations with the potential for generating high concentrations of airborne particulates should be evaluated and controlled as necessary. Avoid breathing metal fumes and/or dusts.

OTHER COMMENTS:

None believed necessary.

This information is taken from sources or based upon data believed to be reliable; however, Maas-Hansen Steel Corporation makes no warranty as to the absolute correctness or sufficiency of any of the foregoing or that additional or other measures may not be required under particular conditions.