



**CLARK WESTERN BUILDING SYSTEMS
MATERIAL SAFETY DATA SHEET
STEEL PRODUCTS**

Emergency Phone: 800-543-7140

CODE No. 3C012

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I. IDENTIFICATION

PRODUCT NAME: Galvanized Sheet-Carbon Steel
(Hot Dipped)

COMMON NAME (S): Same

CASE NO.: 65997-19-5

II. INGREDIENTS AND RECOMMENDED OCCUPATIONAL EXPOSURE LIMITS

NOTE: Steel products under normal conditions do not present an inhalation, ingestion or contact health hazard. (See Section VI)

BASE METAL ALLOYING ELEMENTS METALLIC COATINGS	% WEIGHT	EXPOSURE LIMITS	
		OSHA PEL	ACGIH TLV
Base Metal:			
Iron	Balance	10mg/M ³ for Iron oxide fume	5mg/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 1 mg/M ³ - fume
Phosphorus	.15 max	None for inorganic phosphates	None for inorganic 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	8.5/9.9	5 mg/M ³	10 mg/M ³ - Total ZnO dust 5 mg/M ³ - Respirable ZnO dust & fume
Aluminum	.04 max	None established	10 mg/M ³
Antimony	.02 max	0.5 mg/M ³	0.5 mg/M ³
Lead	.02 max	0.05 mg/M ³	0.15 mg/M ³
Iron	.01/1.5	10 mg/M ³ for iron oxide fume (c) denotes "ceiling limit" which is not to be exceeded at any time.	5 mg/M ³ for iron oxide fume

Oil coating may be used; see Annex II.

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 material used. Typical levels of commonly involved trace or residual elements that may be encountered in steel products are provided in Annex I so that their potential hazards may be considered.

III. PHYSICAL DATA

MELTING POINT

BASE METAL: 2750° F

METALLIC COATING: 800-900° F

APPEARANCE:

Metallic Gray

AND ODOR:

No Odor

IV. FIRE AND EXPLOSION HAZARD DATA

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

V. REACTIVITY DATA

Stable under normal conditions of use, storage and transport. Will react with strong acid to liberate hydrogen.

At temperatures above the melting point of the coating, may liberate zinc fumes.



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, sawing, brazing, grinding, 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 EXPOSURE 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 the mouth, dryness and irritation of the throat, followed by weakness, muscle pain, fever, and chills.

EMERGENCY AND FIRST AID PROCEDURES for overexposure to airbourne 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. SPILL OR LEAK PROCEDURES

NOT APPLICABLE TO STEEL IN THE SOLID STATE.

VIII. SPECIAL PROTECTION INFORMATION

RESPIRATORY: NIOSH/MSHA - approved dust and fume respirators should be used to avoid excess 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, sawing, brazing, grinding, or machining operations.

VENTILATION: Local exhaust ventilation should be provided when welding, burning, sawing, 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.

IX. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

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

OTHER COMMENTS:

No additional comments are believed to be necessary for this product.