



continuous coating corporation

MATERIAL SAFETY DATA SHEET STEEL PRODUCTS

CODE NO. 0004

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I. IDENTIFICATION		INFORMATION AND EMERGENCY TELEPHONE NUMBERS	
PRODUCT NAME: Galvanized Sheet - Zinc Phosphate Coatings		(714) 637-4643	
COMMON NAME(S): Same CAS NO.:		MANUFACTURER: Continuous Coating Corp. 520 West Grove Avenue Orange, California 92665	

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 AND METALLIC COATINGS	% WEIGHT	EXPOSURE LIMITS	
		OSHA PEL	ACGIH TLV
Zinc (1314-13-2)	5 max	5 mg/M ³	10 mg/M ³ -Total ZnO Dust 5 mg/M ³ -Resp. ZnO Dust & Fume
Metallic Coating: Chromium	.3/1.3 .00003	1 mg/M ³ - Cr metal	0.5 mg/M ³ - Cr metal 0.05 mg/M ³ - Cr (VI) compounds

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. 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°F	APPEARANCE Metallic Gray AND ODOR: No Odor
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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. At temperatures above the melting point of the base metal 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, 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 hazard.

EFFECTS OF OVEREXPOSURE:

Chronic inhalation of high concentrations of iron oxide fumes or dusts may lead to a benign pneumoconiosis (siderosis). Inhalation of high concentrations of ferric

MAJOR EXPOSURE HAZARD

INHALATION SKIN CONTACT EYE CONTACT INGESTION

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. Repeated or prolonged exposure to hexavalent chromium compounds may cause respiratory irritation, nose bleed, ulceration and perforation of the nasal septum. Industrial exposure to certain forms of hexavalent chromium has been related to an increased incidence of lung cancer (See Section IX).

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. 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 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, sawing, brazing, grinding or machining to prevent excessive dust or fume exposure.

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:

Operating 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: IARC (Suppl. 1,29-30, 1979) has determined that there is sufficient evidence of increased lung cancer among workers in the chromate producing industry and possibly chromium alloy workers. This determination is supported by sufficient evidence for carcinogenicity to animals and possible mutagenicity testing of Cr VI compounds.

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