

MATERIAL SAFETY INFORMATION

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DATE:

SECTION 1 - IDENTITY

PRODUCT NAME: SEAMLESS NIPPLES

COMMON NAME: SEAMLESS NIPPLES

SECTION 2 - INGREDIENTS AND RECOMMENDED OCCUPATIONAL EXPOSURE LIMITS

BASE METAL, ALLOYING ELEMENTS AND METALLIC COATINGS	% WEIGHT	EXPOSURE LIMITS	
		OSHA PEL	ACGIH TLV
BASE METAL, IRON (1309-37-1)	98/99	10mg/m ³ for iron oxide fume	5mg/m ³ for iron oxide fume
ALLOYING ELEMENTS: CARBON (7440-44-0)	.06/.29	None Established	3mg/m ³ carbon black
MANGANESE (7439-96-5)	.30/1.60	(C) 5mg/m ³	(C) 5mg/m ³ – Dust 1mg/m ³ – Fume
PHOSPHORUS (7723-14-0)	.12 Max.	None for inorganic phosphates	None for inorganic phosphates
SULFUR (7704-34-9)	.33 Max.	13mg/m ³ AS SO ₂	5mg/m ³ AS SO ₂
METALLIC COATINGS*			
ZINC (1314-13-2)	.05/.35	5mg/m ³	10mg/m ³ Total ZnO Dust
*Galvanized Pipe or Plated Couplings only			5mg/m ³ Respirable ZnO Dust and Fume
(C) Denotes "Ceiling Limit" which is not to be exceeded at any time			
An oil base emulsified rust preventive coating may be used, which could produce smoke if heated or welded. No hazardous decomposition products or toxic fumes are produced.			
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.			

SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS

Melting Point:

Base Metal: 2750°F Metallic Coating: 900-1000°

Appearance & Odor: Metallic Gray No Odor

SECTION 4 - FIRE AND EXPLOSION DATA

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

SECTION 5 - HEALTH HAZARD INFORMATION

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 the melting point or results in the generation of airborne particulates, may present health hazards.

Effects of Overexposure:

Major Exposure Hazard			
<input checked="" type="checkbox"/> Inhalation	<input type="checkbox"/> Skin Contact	<input type="checkbox"/> Eye Contact	<input type="checkbox"/> Ingestion

Chronic inhalation of high concentrations of iron oxide fumes or dust 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 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.

SECTION 6 - 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, may liberate fumes containing oxides of iron and alloying elements. Plated parts will react with strong acids and also when welded to produce zinc oxide fumes.

SECTION 7 - SPILL OR LEAK PROCEDURES

Not Applicable to steel in the solid state.

SECTION 8 - 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 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 on the conditions of use and specific work situations, additional protective equipment and/or clothing may be required to control exposure.

SECTION 9 - SPECIAL PRECAUTIONS

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.

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