



MATERIAL SAFETY DATA SHEET						
To the Purchaser: This MSDS contains important environmental, health and toxicological information for your employees who have ordered this product. Please ensure that this information is given to them. If you resell this product, a copy of the MSDS should be given to the buyer.						
IDENTITY: COLD ROLLED, LOW CARBON STEEL STRIP						
Section I						
MANUFACTURER			EMERGENCY TELEPHONE NUMBER 330-841-6111			
THOMAS STEEL STRIP						
DELAWARE AVENUE, NW			TELEPHONE # FOR INFORMATION: 330-841-6118			
WARREN, OHIO 44485			DATE PREPARED: JANUARY, 1989			
			DATE REVISED: NOVEMBER, 2000			
Section II—Hazardous Ingredients/Identity Information						
Hazardous Components (Specific Chemical Identity) Ingredients	CAS #	% (weight)	Exposure (PEL as)	Exposure Limits		
				OSHA PEL mg/M ³	ACGIH TLV mg/M ³	ACGIH STEL mg/M ³
Iron	1309-37-1	97-99	Iron Oxide Fume	10	5	
Carbon	7440-44-0	0.001-1.03	Nuisance Dust	15	10	
Manganese	7439-96-5	0.15-0.99	Manganese Dust	5 [©]	0.2	
			Manganese Fume	5 [©]	1	3
Phosphorus	8049-19-2	0.001-0.04	Nuisance Dust	15	10	
Sulfur	7704-34-9	0.001-0.05	Nuisance Dust	15	10	
Silicon	7440-21-3	0.01-0.40	Nuisance Dust	15	10	
Aluminum	7429-90-5	0.02-0.09	Nuisance Dust *total **respirable dust	15*5**	10	
Antimony	7440-36-0	0.005-0.04	Antimony	0.5	0.5	
Columbium	7440-03-1	0.01-0.15	Nuisance Dust	15	10	
Titanium	7440-32-6	0.01-0.15	Nuisance Dust	15	10	
Boron	7440-42-8	0.005-0.01	Nuisance Dust	15	10	
Copper	7440-50-8	0.01-0.20	Copper Fume	0.1	0.2	
This product may contain trace elements such as: aluminum, arsenic, antimony, boron, cadmium, calcium, chromium, cobalt, columbium, copper, lead, molybdenum, nickel, phosphorus, silicon, sulfur, tin, tantalum, titanium, vanadium, and zirconium may be present in trace amounts. *Note - A coating of petroleum oil may be added for corrosion protection. © - Denotes Ceiling Limit						

Section III—Physical/Chemical Characteristics			
Boiling Point	N/A	Specific Gravity (H ₂ O = 1)	7.5 to 8.5
Vapor Pressure (mm Hg)	N/A	Melting Point	2400 to 2800 °F
Vapor Density (AIR = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A
Solubility in Water INSOLUBLE			
Appearance and Odor SOLID GRAY ODORLESS METAL			
Section IV—Fire and Explosion Hazard Data			
Flash Point (Method Used)	N/A	Flammable Limits	LEL N/A UEL N/A
Extinguishing Media N/A			
Special Fire Fighting Procedures N/A			
Unusual Fire and Explosion Hazards N/A			
Section V—Reactivity Data			
Stability	Unstable		Conditions to Avoid
	Stable	X	N/A
Incompatibility (Materials to Avoid) ACIDS, STRONG OXIDIZERS			
Hazardous Decomposition or Byproducts METAL OXIDES OF LISTED INGREDIENTS			
Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	N/A
Section VI—Health Hazard Data			
Route(s) of Entry	Inhalation? YES	Skin? YES	Ingestion? LIMITED
SEE BELOW**			
Health Hazards (Acute and Chronic)			
**STEEL PRODUCTS IN THEIR NATURAL STATE DO NOT PRESENT AN INHALATION, INGESTION OR CONTACT HAZARD. HOWEVER, OPERATIONS SUCH AS BURNING, CUTTING, WELDING, SAWING, BRAZING AND/OR GRINDING MAY RESULT IN THE FOLLOWING EFFECTS IF THE PEL AS LISTED IN SECTION II ARE EXCEEDED.			
Iron Oxide: Acute - Irritation of eyes, nose throat or metallic taste or metal fume fever			
Chronic - Pulmonary effects, siderosis			
Signs and Symptoms of Exposure			
IRRITATION OF EYES, NOSE AND THROAT. ALLERGIC SKIN RASHES. POSSIBLE METALLIC TASTE.			
Medical Conditions Generally Aggravated by Exposure			
SENSITIZED INDIVIDUALS MAY EXPERIENCE AN ALLERGIC SKIN RASH OR ASTHMA			
Emergency and First Aid Procedures			
FOR SKIN RASHES SEEK MEDICAL ATTENTION. CLEANSE WOUNDS THOROUGHLY TO REMOVE ANY PARTICLES. REMOVE TO FRESH AIR & SEEK MEDICAL ATTENTION			

Section VII—Precautions for Safe Handling and Use

Steps to Be Taken in Case Material Is Released or Spilled N/A

Waste Disposal Method CONSULT FEDERAL, STATE AND LOCAL REGULATIONS

Precautions to Be Taken in Handling and Storing

AVOID REPEATED SKIN CONTACT. WEAR SUITABLE GLOVES. SAFETY GLASSES AND LONG SLEEVED SHIRTS ARE RECOMMENDED.

Other Precautions N/A

Section VIII—Control MeasuresRespiratory Protection (*Specify Type*) NIOSH APPROVED RESPIRATOR SELECTED ACCORDING TO OSHA 29 CFR 1910.134 IF PEL IS EXCEEDED

Ventilation Local Exhaust AS REQUIRED TO MAINTAIN EXPOSURE BELOW PEL.

Protective Gloves HEAVY DUTY CLOTH OR LEATHER

Eye Protection SAFETY GLASSES/GOGGLES

Other Protective Clothing or Equipment, LONG SLEEVES AND WRISTLETS

Work/Hygienic Practices WASH THOROUGHLY AFTER HANDLING, LAUNDRER CLOTHING AND GLOVES

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