



METAL COATERS®
 OF CALIFORNIA, INC.
Material Safety Data Sheet

4/12/2005

1. General Information

Manufacturers: Metal Coaters of California, Inc.
 9123 Center Ave.
 Rancho Cucamonga, CA 91730
 Emergency Phone (909)-987-4681
 Issue Date 11-22-00

2. Product Information

Product Identity: Coil Coated Cold Rolled Steel
 CAS Number: Not Applicable
 Synonyms: Pre-painted Cold Rolled Steel
 Chemical Name: Not Applicable
 Chemical Formula: Not applicable

3. Material Identification and Information

Components	WT%	CAS Number	OSHA-PEL (mg/Cu-m)	ACGIH-TLV
BASE METAL				
Iron	>94	7439-89-6	10(oxide fume)	2
ALLOYING ELEMENTS				
Manganese	<2	7439-96-5	5 (ceiling)	1(fume)
Phosphorus	<1	7723-14-0	.1	
Sulphur	<1	7704-34-9	13 (AS so2)	5(as SO2)
Nickel	<1	7440-02-0	1	1
Chromium	<1	7440-47-3	1	0.5
Copper	<1	7440-50-8	0.1(fume)	
NON- METALLIC COATING				
Paint	(Note 2) Various		Not Applicable	

(1) All values, unless otherwise specified, refer to an 8-hour, time weighted average concentration; units are inmg/cu M.
 (2) Weight percentages of these compounds are below the level for which reporting of exact percentages is required in Section 313 of SARA 40CFR Part 372. These chemicals are indicated by an asterisk (*) preceding the component name.

4. Physical/ Chemical Characteristics

Melting Point: Base metal 2700-2800Deg F (1480-1540Deg C)
 Normal Physical State: Solid
 Specific Gravity (water=1): 7.7-7.9
 Boiling Point: Not Applicable
 Solubility in Water: Negligible
 Percent Volatile by Volume: <1
 Evaporation rate: Not Applicable
 Vapor Density (Air =1): Not Applicable
 Flash Point: Not Applicable
 pH: Not Applicable
 Appearance and Odor: Various Colors/Odorless

Material Safety Data Sheet for Coiled Coated Cold Roll Steel (Continued)

5. Fire and Explosion Hazard Data

Coil Coated Cold Rolled Steel products in their normal physical state do not present a fire or explosion hazard. When Coil Coated Cold Rolled Steel is subjected to elevated temperatures, the non-metallic coatings may decompose, yielding products which may present an additional fire or explosion hazard.

6. Reactivity Hazard data

STABILITY: Coil Coated Rolled Steel Products are stable under normal conditions of transportation, storage and use. When temperatures are elevated, to or above the melting and/or decomposition point of the base metal and/ or hydrocarbons may be liberated; also molten metal is highly reactive when poured into water.

CONDITIONS TO AVOID: Contact with strong acids or bases; heating to or above the melting point; pouring molten metal into water.

INCOMPATIBILITY: - MATERIALS TO AVOID: Strong acids such as sulfuric and strong bases such as caustic.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen gas; metal oxides; hydrocarbons; metallic fumes and dusts.

HAZARDOUS POLYMERIZATION: Will not occur.

7. Health Hazard Data

NOTE: Coil Coated Rolled Steel Products under normal conditions do not present an inhalation, ingestion, eye, or skin contact hazard; in addition, they are not listed by name in the National Toxicology Program (NTP) "Annual Report on Carcinogens" and have not been found to be potential carcinogens in the International Agency for Research on Cancer (IARC) "Monographs" or by OSHA. However, operations such as burning, welding, brazing, sawing, grinding, sanding, and /or decomposition point, and/ or result in the release of airborne particles (dust), fumes, and / or vapors, may present acute and/ or chronic health hazards.

EFFECTS OF OVEREXPOSURE: When performing any of above operations on the product, the major exposure hazard to be considered is that of inhalation. The inhalation of high concentrations of the freshly formed metal oxide fumes and/ or dusts of iron, manganese, and/ or copper in the respirable particle size range may cause an influenza-like illness termed "Metal Fume Fever". Typical symptoms last 6 to 48 hours and are characterized by a metallic taste in the mouth, dryness and irritation of the throat, and coughing, followed by shortness of breath, headache, fever, chills, muscle aches, nausea, weakness, and profuse sweating. Aggravated existing medical conditions include chronic diseases and disorders of the respiratory system.

Chronic inhalation of high concentrations of iron oxide fumes and / or dusts may lead to a benign pneumoconiosis (siderosis). While no physical impairment of lung function has been linked to siderosis, inhalation of high concentrations of iron fumes may possibly enhance the risk of lung cancer development in workers exposed to pulmonary carcinogens.

Both acute and chronic exposure to manganese oxide fumes and / or dusts may adversely affect the central nervous system, but symptoms are more likely to occur after at least one or two years of prolonged or repeated exposure. Early symptoms may include weakness in lower extremities, sleepiness or drowsiness, salivation, nervousness and apathy. In more advanced stages, severe muscular incoordination, impaired speech, spastic walking and uncontrollable laughing may occur. An increased incidence of pneumonia and bronchitis has been reported in some worker populations exposed to manganese oxide fumes.

Prolonged or repeated exposure to copper fumes and / or dusts may cause discoloration of the skin and/ or hair; there is also an increased risk of contracting Wilson's disease.

Prolonged or repeated exposure to sulfur dioxide may cause edema of the lungs. Nickel fumes and/ or dusts may cause severe pneumonitis and/ or an allergic dermatitis; the resulting skin rash is often referred to as "Nickel Itch."

CANCER WARNING: Iron Oxide fume; manganese and manganese fume; copper and copper fume and dusts; sulfur dioxide; nickel and soluble nickel compounds; and chromium; and chromium, chromium salts and various chromium compounds are listed by OSHA in 29 CFR part 1910, Subpart Z. "Nickel and certain nickel compounds" and "Chromium and certain chromium compounds" are also listed in the NTP "Annual Report on Carcinogens" and the IARC "Monographs" (latest editions).

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The toxicity and health hazards of chromium and certain chromium compounds are very dependent upon their oxidation state. The elemental (as in the metal), divalent, and trivalent forms are very low in toxicity. The hexavalent form (such as occurs in chromate salts and chromic acid) is very toxic and may produce both acute and chronic effects. Adverse effects on the skin may include irritative dermatitis, ulcerations, and other allergic skin reactions and ulcerations and / or nasal itch. Eye irritations or inflammation may also be produced. Ingestion may result in gastrointestinal damage and/ or long-term exposure may cause liver and/ or kidney damage. Exposure to some hexavalent chromium compounds has shown to be associated with an increased risk of lung cancer.

EMERGENCY AND FIRST AID PROCEDURES: coil Coated Rolled Steel products in their normal physical state are not anticipated to pose any significant inhalation, eye, skin contact or ingestion hazard.

INHALATION: For overexposure to airborne particles, fumes, and/ or vapors, removed exposed person to fresh air. If breathing is difficult or has stopped, administer artificial respiration or oxygen, as required. **SEEK MEDICAL ATTENTION IMMEDIATELY!** Treat "Metal Fume Fever" by bed rest and administer a pain- and fever-reducing medication.

EYE CONTACT: Irritation may result if airborne particles and/ or fumes are generated by mechanical operations, such as grinding, sawing, etc., unless proper eye protection is worn. Thermal decomposition may produce vapors that are eye irritants. In these cases, remove exposed person to fresh air and flush eyes with running water for at least 15 minutes. If condition persists, **SEEK MEDICAL ATTENTION IMMEDIATELY!**

SKIN CONTACT: use of appropriate gloves or a protective cream is recommended for prolonged handling. If skin irritation develops due to exposure to airborne particles, fumes, and/ or vapors caused by mechanical operations and/ or thermal decomposition remove clothing and thoroughly wash affected area(s) with soap and water. If condition persists, **SEEK MEDICAL ATTENTION IMMEDIATELY!** Clothing should be washed or discarded.

INGESTION: If ingestion of airborne particles occurs, dilute with large quantities of water, induce vomiting and **SEEK MEDICAL ATTENTION IMMEDIATELY!**

8. precautions for Safe Handling and Use

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Not applicable to Coil Coated Rolled Steel products in their normal physical state. However, dust generated from secondary operations should be cleaned up with equipment that avoid dust generation, such as filter equipped vacuum and/ or wet mop procedures.

WASTE DISPOSAL METHOD: Coil Coated Cold Rolled Steel products may be disposed of by any method that is in compliance with local, state, and federal laws.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Since Coil Coated Rolled Steel Products are typically supplied in (strips (coils) or cut sheets, proper warehousing safety practices should be followed for handling heavy packages of sheet metal. These include use of adequate- sized cranes, crane hooks, forklift trucks, wood shocks, and coil chains; in addition, hard hats, safety shoes, and tear resistant gloves are recommended. Avoid storing Coil Coated Rolled Steel products in wet or damp locations as oxidation may occur.

9. Control and Protective Measures

RESPIRATORY PROTECTION: None required in normal handling and use. However, when performing certain operations on the product, such as welding, brazing, grinding, sawing, sanding, and/ or machining, which may result in the production of moderate concentrations of airborne particles, fumes, and/ or thermal decomposition products, a NIOSH/MSHA – approved respirator fitted with a dust/fume/ mist filter should be properly worn at all time. If heavy concentrations of fumes and/ or dusts exceeding the OSHA PEL or ACGIH TLV limits are produced, then a supplied- air respirator or a self- contained breathing apparatus (SCBA) is recommended.

VENTILATION: None required in normal handling and use. Adequate ventilation and/ or air filtration is required when performing certain operations on the product, such as welding, brazing, grinding, sawing, burning, sanding, and/ or machining, which may result in the production of airborne particles, fumes, and/ or thermal decomposition products that are above the OSHA PEL or ACGIH Limits.

MECHANICAL: Required for major machining operations producing excessive and or irritating amounts of airborne particles, fumes, and of thermal decomposition products is recommended.

EYE PROTECTION: The wearing of safety glasses with side shields, goggles, and/ or a face shield is recommended at all times when handling Coil Coated Cold Rolled Steel products, especially when performing any type of welding, brazing, grinding, sawing, sanding, and/ or machining operation on the product.

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DISCLAIMER: This MSDS is provided solely as general information and is not to be construed as a determination that this product is hazardous. The information presented herein was obtained from our raw material suppliers and other sources that are believed to be reliable. However, no legal representation or warranty-expressed or implied- as to the accuracy or completeness of this information is provided. Furthermore, no warranty or merchantability, fitness for any particular purpose, safety of this product, or the hazards related to its use is expressed or is to be implied. This information and product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assumes the risk of his use thereof. MCCI assumes no liability for incidental, consequential, or direct damages of any kind- regardless of the cause, including negligence.

HAZARD WARNING LABEL
COIL COATED COLD ROLLED STEEL
Metal Coaters of California
9123 Center Ave.
Rancho Cucamonga, CA 91730

HAZARD WARNING: Solid metal- may present acute and/ or chronic health hazards, including cancer, if exposed to airborne particles (dusts), fumes, and o/ or vapors containing metal and/ or carbon oxides, alloying elements, and/or hydrocarbons caused by burning, welding, brazing, sawing, grinding, sanding, and/or machining. Overexposure may lead to damage to the lungs, liver and/ or kidney, and/ or respiratory, blood, gastrointestinal, nervous and/ or reproductive systems