

MLP Steel, LLC

Fayette Steel Division • Laurel Steel Division

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www.mlpsteel.com

Dear Customer:

Enclosed are Material Safety Data Sheets (MSDS) for the steel products you have purchased, or may purchase, in the near future from MLP Steel, LLC. The Material Safety Data Sheets are provided as part of our continuing efforts to comply with the Occupational Safety and Health Administration Hazard Communication Standard, 29 CFR 1910.1200. These MSDSs are complete and accurate to the best of our knowledge.

While steel products in their usual physical state are not considered hazardous, when subjected to welding, burning, grinding, cutting, abrasive blasting, heat treating, pickling, or similar operations, they may emit potentially hazardous fumes or dusts.

Non-metallic coatings, such as drawing compounds and water soluble oils may be applied in small quantities to the surface of steel products during the manufacturing process. The possible presence of these coatings should be recognized and considered when evaluating potential employee health hazards and exposures.

If you have any questions concerning the Material Safety Data Sheet program, please contact the Safety Department at the phone number listed on the MSDS.

Respectfully submitted,

Judy DeWitt

Human Resources & Safety Mgr.
MLP Steel, LLC



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**MLP STEEL, LLC
FAYETTE STEEL DIVISION**

MATERIAL SAFETY DATA SHEET

-----**GENERAL INFORMATION**-----

MANUFACTURER: MLP STEEL, LLC Date: January 2008
 FAYETTE STEEL DIVISION
 18 Mount Pleasant Road
 Scottsdale, PA 15683

For Additional Information, contact:
 Safety Department
 (724) 887-8100

-----**PRODUCT IDENTIFICATION**-----

PRODUCT NAME: Aluminum Coated Steel Wire **Formula**
 NA

Synonym(s): NA **Chemical Family**
 NA

-----**TYPICAL CHEMICAL COMPOSITION (1)**-----

<u>Ingredient (2)</u>	<u>CAS No.</u>	<u>Wt. %</u>	<u>Permissible Air Level (3)</u>	
			<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Base metal:				
Iron	7439-89-6	Balance	10 (4)	5 (4)
Manganese	7439-96-5	.25-2.0	5.0 (5)	1.0 (6)
Chromium	7740-47-3	.01-2.0	0.1 (7)	0.5 (7)
Nickel	7440-02-0	.01-1.0	1.0 (8)	1.0 (8)
Copper	7440-50-8	.01-1.0	0.1 (9)	0.2 (9)
Trace Elements	NA	LT 2.0	NA	NA
Metallic Coating:				
Aluminum	7429-90-5	GT 95	NA	5 (10)
Silicon	7740-21-3	4.0 (Max)	15	10
			(Total Dust)	
			5	5
			(Respirable Dust)	
Trace Elements	NA	LT 1.0	NA	NA

-----**PHYSICAL DATA**-----

Physical State: Solid	Specific Gravity: 7.6-7.8
Appearance and Odor: Bright, spangled metal; odorless	Vapor Pressure: NA
Boiling Point: NA	Vapor Density: NA
Melting Point: 2800°F	Evaporation Rate: NA
Solubility in Water: NA	% Volatile by Volume: NA
pH: NA	

-----**FIRE AND EXPLOSION HAZARD DATA**-----

Not Applicable

-----**REACTIVITY DATA**-----

Stability: Stable
Incompatibilities (Materials to avoid): Acids
Hazardous Decomposition Products: Welding and burning on this product may cause the generation of a variety of noxious fumes and gases (e.g., carbon monoxide, zinc oxide fume, etc.)
Polymerization: Will not occur

-----**HEALTH HAZARD DATA**-----

Health Effects/Signs and Symptoms:

Note: Steel products in their usual physical form do not pose any health hazards. However, when subjected to welding, burning, grinding, cutting, abrasive blasting, heat treatment, pickling, or similar operations, potentially hazardous fumes or dusts may be emitted. Despite the fact that the welding, burning, etc. of steel in this particular category may produce fumes containing manganese, chromium, nickel, copper and silicon, the air concentrations generated of these compounds are expected to be extremely low. Special attention should be directed to the aluminum-zinc alloy or aluminum coating which could be a significant source of aluminum and/or zinc fumes or dusts during welding or similar activities. The following is a list of fumes or dusts that may be generated from this steel product category and the health effects associated with overexposure to them:

Iron (Fe):

Subjecting iron and alloys containing iron to high temperatures (such as occurs during welding) will cause the formation of iron oxide. Long-term exposure to iron oxide fumes or dusts has been associated with a benign lung condition known as siderosis which is observable as an X-ray change. No physical impairment of lung function has been linked to siderosis.

Manganese (Mn):

Mn intoxication is usually due to the oxide or salts of Mn, elemental Mn exhibits very low toxicity. The dusts and fumes can act as minor irritants to the eyes and respiratory tract. Both acute and chronic exposures may adversely affect the central nervous system (CNS), but symptoms are more likely to occur after at least 1 or 2 years of prolonged or repeated exposures. Early symptoms may include weakness in lower extremities, sleepiness, salivation, nervousness, and apathy. In more advanced stages, severe muscular incoordination, impaired speech, spastic walking, mask-like facial expression and uncontrollable laughter may occur. Manganese fumes have also been reported to result in metal fume fever, a flu-like syndrome with symptoms such as dizziness, chills, fever, headache, and nausea. An increased incidence of pneumonia, bronchitis, and pneumonitis has been reported in some worker populations exposed to manganese. Animal studies indicate that manganese exposure may increase susceptibility to bacterial and viral infections.

Chromium (Cr):

The toxicity and health hazards of chromium are heavily dependent upon its oxidation state. The elemental (as in the metal), divalent, and trivalent forms are of very low toxicity. The hexavalent form (such as occurs in chromates and chromic acid) is very toxic and can produce both acute and chronic effects. Adverse effects on the skin may include ulcerations, irritative dermatitis, and allergic skin reactions. Adverse effects on the respiratory system may include bronchospasms, edema, hypersecretion, bronchitis, irritation, allergic asthmatic reactions, and ulceration and perforation of the nasal septum. Respiratory symptoms may include coughing and wheezing, shortness of breath, and nasal itch. Eye irritation or inflammation can also be produced. Exposure to some hexavalent chromium compounds have also been shown to be associated with an increased risk of lung cancer.

Nickel (Ni):

Ni fumes and dusts are respiratory irritants and may cause a severe pneumonitis. Skin contact with nickel and its compounds may cause an allergic dermatitis. The resulting skin rash is often referred to as "nickel itch." Ni and its compounds may also produce eye irritation, particularly on the inner surfaces of the eyelids (i.e., the conjunctiva). Animal and/or epidemiology studies have linked nickel and certain nickel compounds to an increased incidence of cancer of the lungs and nasal passages.

Copper (Cu):

Inhalation of Cu fumes may cause irritation of the eyes, nose, and throat and a flu-like illness called metal fume fever. Signs and symptoms of metal fume fever include fever, muscle aches, nausea, chills, dry throat, cough, and weakness. Cu fumes may also produce a metallic or sweet taste. Repeated or prolonged exposure to Cu fumes may cause discoloration of the skin and hair.

Aluminum (Al):

Particles of aluminum deposited in the eye may cause irreversible tissue damage of the cornea. Al salts may cause dermatitis, eczema, conjunctivitis, and irritation of the mucous membranes of the upper respiratory tract. Long-term inhalation exposure to Al dusts or fumes has been associated with a fibrotic lung condition known as Shaver's disease; however, the evidence for this is not conclusive since affected workers were exposed to other substances (such as silica) as well. Symptoms of this condition may include shortness of breath, cough, and fatigue.

Zinc:

Subjecting zinc and alloys containing zinc to high temperatures (such as occurs during welding) will cause the formation of zinc oxide. Exposure to zinc oxide fumes or dusts can result in a flu-like illness called metal fume fever. Early symptoms may include a sweet or metallic taste in the mouth, dryness and irritation of the throat, and coughing. These symptoms may progress to shortness of breath, headache, fever, chills, muscle aches, nausea, vomiting, weakness, fatigue, and profuse sweating. The attack may last 6-48 hours and is more likely to occur after a period away from the job.

Silicon (Si):

This is considered to be a nuisance particulate by ACGIH.

Usual Route(s) of Entry:

Inhalation

Medical Conditions Possibly Aggravated:

Chronic diseases or disorders of the respiratory system

Carcinogen Information:

NTP and IARC consider: (1) chromium and certain chromium compounds to be known human carcinogens, and (2) nickel and certain nickel compounds to be probable human carcinogens.

-----**FIRST AID AND MEDICAL EMERGENCY PROCEDURES**-----

Eye Contact:

Not anticipated to pose a significant eye hazard

Skin Contact:

Not anticipated to pose a significant skin hazard

Inhalation:

Remove from excessive exposure levels unless proper respiratory protection is worn

Ingestion:

Not considered an ingestion hazard

-----**OCCUPATIONAL EXPOSURE CONTROL MEASURES**-----

Engineering Controls (Ventilation, etc.):

Ventilation should be sufficient to maintain exposure levels below the applicable exposure limit

Work Practices (Handling and Storage, etc.):

Arc and spark generated when welding or burning on these products could be a source of ignition for combustible or flammable materials

Eye protection:

Not anticipated to pose a significant eye hazard

Skin Protection:

Not anticipated to pose a significant skin hazard

Respiratory Protection:

When engineering controls are not sufficient to lower exposure levels below the applicable exposure limit, use a NIOSH-approved respirator for dusts and metal fumes within the use limits of the respirator

-----**SPILL, LEAK, AND DISPOSAL INFORMATION**-----

Procedures to Follow if Material is Released or Spilled:

NA

Waste Disposal Method(s):

Any excess product can be recycled for further use, disposed in a permitted hazardous waste landfill, or disposed by other methods which are in accordance with local, state, and federal regulations

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Footnotes:

- (1) Concentrations may vary somewhat between batches or lots.
Where possible, a concentration range is indicated.
Occasionally, however, levels may even fall outside of the usual concentration ranges.
- (2) Common names, if applicable, appear in parentheses following the chemical names.

- (3) All values, unless otherwise specified, refer to 8-hour time-weighted average concentrations and units are in mg/M³.
- (4) As iron oxide fume.
- (5) Ceiling value for manganese.
- (6) As manganese fume.
- (7) As hexavalent chromium compounds.
- (8) As nickel metal and insoluble compounds
- (9) As copper fume.
- (10) As aluminum welding fumes.
- (11) As zinc oxide fume.

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Abbreviations:

NA = Not Applicable
NE = Not Established
UK = Unknown (No applicable information was found)
GT = Greater Than
LT = Less Than

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Revision Information

Revision Date: January 23, 2008
Supercedes: July 8, 2002

Revision Number: 2

Revision Summary

Company name change.

DISCLAIMER

This Material Safety Data Sheet has been prepared solely for the intent of compliance with the provisions of Title 29 CFR 1910.1200 of the Code of Federal Regulations. MLP Steel, LLC (Fayette Steel Division) makes no warranties, expressed or implied, including the implied warranty of merchantability, any implied warranty of fitness for a particular purpose and any implied warranties otherwise arising from course of dealing or trade.

Also, this MSDS is intended for use solely in safety education and environmental health training and not for specification purposes. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. MLP Steel, LLC (Fayette Steel Division) assumes no responsibility and expressly disclaims liability for loss, damage, or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.