



# SAFETY DATA SHEET

## Section 1: Identification

**Product Identifier as Used on the Label:** Galvanized Wire

**Other Means of Identification:** None

**Recommended Use of the Chemical / Restrictions on Use:** Wire

**Manufacturer's Name, Address, and Telephone Number:** Leggett & Platt Wire Division (Carthage Wire Mill, Adcom Wire Company)  
1 Leggett Rd, Carthage, MO. 64836

**Emergency Phone Number:** (417) 358-8131 (during normal business hours)

## Section 2: Hazard(s) Identification

**Hazard Classification(s):** Not classified

**Signal Word:** Not classified

**Hazard Statement(s):** Not classified

**Pictogram(s):** Not classified

**Precautionary Statement(s):** Avoid creating dusts or fumes

**Description of any Hazards not Otherwise Classified:** Not classified

**Percentage of Ingredients with Unknown Toxicity:** None

## Section 3: Hazard(s) Identification

Chemical Name	CAS #	Percentage by Weight		Comments
			%	
Iron	7439-89-6		75-99	Base wire
Chromium	7440-47-3		<0.2	Base wire
Nickel	7440-02-0		<0.15	Base wire
Carbon	7440-44-0		<0.70	Base wire
Manganese	7439-96-5		<1	Base wire
Copper	7440-50-8		<0.25	Base wire
Silicon	7440-21-3		<0.35	Base wire

May contain trace elements of the following in <0.01% amounts: Phosphorus, Sulfur, Molybdenum, and Nitrogen

**Galvanized coating percentages of total product weight.**

Zinc	7440-66-6	<2	Coating
------	-----------	----	---------

May contain trace elements of the following in <0.01% amounts: Lead, Iron, Cadmium, Aluminum, and Copper. May liberate hazardous oxides of iron and zinc at temperatures above the melting point.

**Section 4: First-Aid Measures****DESCRIPTION OF FIRST-AID MEASURES**

**Inhalation:** In case of inhalation of dusts or fumes from heated product: Move into fresh air and keep at rest. Get medical attention if symptoms persist. If breathing is difficult, give oxygen. If breathing stops, provide artificial respiration.

**Skin Contact:** Wash skin with soap and water. In case of burns with hot metal, rinse with plenty of cold water. If burns are severe, consult a physician. If skin irritation or an allergic skin reaction develops, get medical attention.

**Eye Contact:** Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention promptly if symptoms persist or occur after washing.

**Ingestion:** Solid steel: Not applicable. Dust: Get medical attention if any discomfort continues.

**Most Important Symptoms and Effects, both Acute and Delayed:** Exposed individuals may experience eye tearing, redness, and discomfort. May dry the skin leading to discomfort and dermatitis. Prolonged contact may cause redness, irritation and cracking.

**Indicators for Needed Immediate Medical Attention and Special Treatment:** High concentrations of freshly formed fumes/dusts of metal oxides can produce symptoms of 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.

**Section 5: Fire-Fighting Measures**

**Suitable Extinguishing Media:** No unusual fire or explosion hazards are noted. Use fire extinguishing media appropriate for the surrounding materials

**Unsuitable Extinguishing Media:** None known

**Specific Hazards Created by Chemical During Combustion:** By heating and fire, toxic fumes may be generated

**Special Protective Equipment and Precautions for Fire Fighters:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire

**Section 6: Accidental Release Measures**

**Personal Precautions Release Response:** Cold solid metal: No special precautions are necessary beyond normal good hygiene practices and protection against possible sharp edges.

**Protective Equipment for Release****Response:** Leather gloves**Emergency Procedures for Release Response:**

None

**Methods and Materials for Containment and Clean-Up:**

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations

**Section 7: Handling and Storage**

**Precautions for Safe Handling:** Avoid contact with sharp edges and hot surfaces. Use appropriate gloves and tools to ensure safe handling. Use work methods which minimize dust/fume production. Do not breathe fumes and dusts. Observe safety measures suited to the coating(s) when handling, cutting or melting. The organic material(s) of the coating(s) may generate fumes or gases when heated or melted. Follow the recommendations in ANSI Z49.1, Safety in welding and cutting (ANSI=American National Standard Institute). Observe good industrial hygiene practices.

**Required Conditions for Safe Storage:**

Store in a dry place.

**Storage Conditions to Avoid:**

Store away from: Oxidizing agents. Acids.

**Section 8: Exposure Controls / Personal Protection****EXPOSURE LIMITS**

Component	Type	Source	Value	Form
Iron Oxide** CAS 1309-37-1	PEL	OSHA	10mg/m <sup>3</sup>	Fume
	TWA	ACGIH	5mg/m <sup>3</sup>	Respirable Fraction
	REL	NIOSH	5mg/m <sup>3</sup>	Dust and Fume
Zinc Oxide** CAS 1314-62-2	PEL	OSHA	5mg/m <sup>3</sup>	Fume
	PEL	OSHA	15mg/m <sup>3</sup>	Dust
	STEL	ACGIH	10mg/m <sup>3</sup>	Respirable Fraction
	TWA	ACGIH	2mg/m <sup>3</sup>	Respirable Fraction
	Ceiling	NIOSH	15mg/m <sup>3</sup>	Dust
	REL	NIOSH	5mg/3	Dust
	STEL	NIOSH	10mg/3	Fume
Chromium CAS 7440-47-3	PEL	OSHA	1mg/m <sup>3</sup>	
	TWA	ACGIH	0.5mg/m <sup>3</sup>	
	REL	NIOSH	0.5mg/m <sup>3</sup>	
Nickel CAS 7440-02-0	PEL	OSHA	1mg/m <sup>3</sup>	
	TWA	ACGIH	1.5mg/m <sup>3</sup>	Inhalable Fraction
	REL	NIOSH	0.015mg/m <sup>3</sup>	
Manganese CAS 7439-96-5	Ceiling	OSHA	5mg/m <sup>3</sup>	Fume
	TWA	ACGIH	0.1mg/m <sup>3</sup>	Inhalable Fraction
	REL	NIOSH	1mg/m <sup>3</sup>	Fume
	STEL	NIOSH	10mg/m <sup>3</sup>	Fume

\*\*Iron oxide is formed at temperatures above the melting point. \*\*Zinc oxide fumes may be formed during burning, cutting, or welding.

**EXPOSURE CONTROLS**

**Engineering Controls:** Adequate ventilation should be provided so that exposure limits are not exceeded. Use local exhaust when welding, burning, sawing, brazing, grinding or machining to prevent excessive dust or fume exposure

**General Hygiene Considerations:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/ or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Observe and medical surveillance requirements.

**PERSONAL PROTECTIVE EQUIPMENT**

**Respiratory:** Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust / fumes at limits exceeding the exposure limits

**Eyes and Face:** Use of safety glasses or goggles is required for welding, burning, sawing, brazing, grinding or machining operations. In addition to safety glasses or goggles, a welding helmet with appropriate shaded shield is required during welding, burning, or brazing. A face shield is recommended, in addition to safety glasses or goggles, during sawing, grinding, or machining.

**Hands:** Wear protective gloves.

**Skin and Body:** Wear suitable protective clothing

**Section 9: Physical and Chemical Properties****MATERIAL DESCRIPTION**

<b>Physical Form:</b>	solid	<b>Flash Point:</b>	n/a
<b>Appearance:</b>	Silver to gray	<b>Evaporation Rate:</b>	n/a
<b>Odor:</b>	No odor	<b>Flammability (solid, gas):</b>	n/a
<b>Odor Threshold:</b>	n/a	<b>Upper / Lower Flammability or Explosive Limits:</b>	n/a
<b>pH:</b>	n/a	<b>Vapor Pressure:</b>	n/a
<b>Melting Point / Freezing Point:</b>	2600-2800F	<b>Vapor Density:</b>	n/a
<b>Boiling Point:</b>	n/a	<b>Specific Gravity (H<sub>2</sub>O=1):</b>	Approximately 8
<b>Solubility:</b>	n/a	<b>Auto-Ignition Temperature:</b>	n/a
<b>Partition Coefficient, n-octanol / water:</b>	n/a	<b>Decomposition Temperature:</b>	n/a
<b>Viscosity:</b>	n/a	<b>Particulate Size:</b>	n/a

**Section 10: Stability and Reactivity**

**Reactivity:** Stable at normal conditions

**Chemical Stability:** This product is stable under expected conditions of use

**Possibility of Hazardous Reactions:** Will not occur under expected conditions of use

**Conditions to Avoid:** Contact with incompatible materials

**Incompatible Materials:** Strong acids and oxidizing agents

**Hazardous Decomposition Bi-Products:** At elevated temperatures: metal oxides, metal fumes, ozone, and carbon oxides

## Section 11: Toxicological Information

### Information on likely routes of exposure

**Ingestion** Solid steel: Not relevant, due to the form of the product. However, ingestion of dusts generated during working operations may cause nausea and vomiting.

**Inhalation** No inhalation hazard under normal conditions. Welding, burning, sawing, brazing, grinding or machining operations may generate fumes and dusts of metal oxides. High concentrations of freshly formed fumes/dusts of metal oxides can produce symptoms of 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.

**Skin Contact** Under normal conditions of intended use, this material does not pose a risk to health. Dust may irritate skin. Contact with hot material can cause thermal burns which may result in permanent damage.

**Eye Contact** Under normal conditions of intended use, this material does not pose a risk to health. Contact with hot material can cause thermal burns which may result in permanent damage. Grinding and sanding this product may generate dust. Dust may irritate the eyes.

**Symptoms related to the physical, chemical and toxicological characteristics** Symptoms include itching, burning, redness, and tearing of eyes. Mechanical irritation of skin. Heating above the melting point releases metallic oxides which may cause metal fume fever by inhalation. The symptoms are shivering, fever, malaise and muscular pain.

### Information on toxicological effects

**Acute toxicity** Welding, cutting and metalizing can generate ozone. Ozone can cause irritation of eyes, nose and respiratory tract.

Components	Species	Test Results
Iron (CAS 7439-89-6)		
Acute Oral LD50	Rat	30 g/kg
Manganese (CAS 7439-96-5)		
Acute Oral LD50	Rat	9000 mg/kg
Skin corrosion / irritation	Not classified	
Serious eye damage / eye irritation	Not classified	
Respiratory or skin sensitization		
Respiratory sensitization	No data available	
Skin sensitization	Contains nickel: May cause allergic skin reaction	
Germ cell mutagenicity	No data available	
Carcinogenicity	For solid product: The product is not classified as carcinogenic	
IARC Monographs Overall		

Evaluation of Carcinogenicity	
Nickel (CAS 7440-02-0)	2B Possible carcinogen to humans
NTP Report on Carcinogens	
Nickel (CAS 7440-02-0)	Reasonably anticipated to be a human carcinogen
Reproductive toxicity	No data available
Specific target organ toxicity-single exposure	Not classified
Specific target organ toxicity-repeated exposure	Not classified
Aspiration hazard	Not applicable for solids
Chronic effects	Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases. Exposure to manganese fume/dust can affect the central nervous system (apathy, drowsiness, weakness, and chronic symptoms such as postural tremors)
Further information	The ingredients of the alloy are bound within the product and release is not expected under normal conditions. In its manufactured and shipped state, this product is considered non-hazardous. Processing may generate hazardous fumes and dusts.

## Section 12: Ecological Information

<b>Ecotoxicity</b>	Not expected to be harmful to aquatic organisms
<b>Persistence and degradability</b>	No data available
<b>Bioaccumulative potential</b>	No data available on bioaccumulation
<b>Mobility in soil</b>	No data available
<b>Mobility in general</b>	Not relevant, due to physical form of product
<b>Other adverse effects</b>	None known

## Section 13: Disposal Considerations

<b>Disposal Instructions:</b>	Dispose of waste and residues in accordance with applicable federal, state and local regulations.
<b>Hazardous Waste Code:</b>	Not Regulated
<b>Waste from Residues / Unused Products:</b>	Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Recover and recycle, if practical.

## Section 14: Transport Information

<b>DOT</b>	Not regulated as dangerous goods.
<b>IATA</b>	Not regulated as dangerous goods.
<b>IMDG</b>	Not regulated as dangerous goods.
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable

## Section 15: Regulatory Information

### US Federal Regulations

Under some use conditions, this material may be considered to be hazardous in accordance with OSHA 29 CFR 1910.1200.

<b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpart D)</b>	Not Regulated
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	Not Listed
<b>Superfund Amendments and Reauthorization Act of 1986 (SARA)</b>	No Hazard Categories Listed
<b>SARA 302 Extremely Hazardous Substance</b>	Not Listed
<b>SARA 311/312 Hazardous Chemical</b>	No
<b>SARA 313 (TRI Reporting)</b>	

Chemical Name	CAS Number	% by Weight
Zinc	7440-66-6	<2.0
Manganese	7439-96-5	<1.0
Nickel	7440-02-0	<0.15

### Other Federal Regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Manganese (CAS 7439-96-5)

Nickel (CAS 7440-02-0)

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not Regulated

#### Safe Drinking Water Act (SDWA)

Not Regulated

### US State Regulations

#### Massachusetts RTK – Substance List

Manganese (CAS 7439-96-5)

Nickel (CAS 7440-02-0)

Zinc (CAS 7440-66-6)

#### New Jersey Worker and Community Right-to-Know Act

Manganese (CAS 7439-96-5)

Nickel (CAS 7440-02-0)

Zinc (CAS 7440-66-6)

#### Pennsylvania Worker and Community Right-to-Know Law

Manganese (CAS 7439-96-5)

Nickel (CAS 7440-02-0)

Zinc (CAS 7440-66-6)

#### Rhode Island RTK

Manganese (CAS 7439-96-5)

Nickel (CAS 7440-02-0)

Zinc (CAS 7440-66-6)

#### California Proposition

**WARNING: This product contains a chemical known to the State of California to cause Cancer. Carcinogens & Reproductive Toxicity (CRT) - Nickel (CAS 7440-02-0)**

### International Inventories

Country or Region	Inventory Name	On Inventory (Yes / No)
US & Puerto Rico	TSCA Inventory	Yes

## Section 16: Other Information

**Date of SDS Preparation:** 03/18/2015

**Last Revision Date:** 03/18/2015

**Changes From Last Revision:** MSDS to SDS conversion

**Other Information:** This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.