

# Firestone Metal Products Company

## Material Safety Data Sheet

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### SECTION 1: PRODUCT IDENTIFICATION

Product Name:	Metal Roofing Products: UC-1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 14, 600, 601, 700; UR, HR, VR, 5VC, Flat Lock, ES-1, 2, 3, 4; sheet and coil stock, UNA-Edge DE, GS, CO; Brake metal
Chemical Name / Synonym:	Revere Copper – Freedom Gray or Tin/Zinc Coated Copper, ASTM B370
Chemical Family:	None
24-Hour Emergency Phone:	(800) 424-9300 CHEMTREC
Manufacturer's Name:	Firestone Metal Products Company
Manufacturer's Address:	250 West 96 <sup>th</sup> Street, Indianapolis, IN 46260
NFPA Hazard Rating:	Health 1, Flammability 0, Reactivity 0
HMIS Hazard Rating:	Health 0, Flammability 0, Reactivity 0

### SECTION 2: CHEMICAL COMPOSITION

Chemical Name:	Common Name:	CAS #:	% (by wt)	Exposure Limits:
Copper	Copper	7440-50-8	90	1 mg/m <sup>3</sup> (dust) TLV 1 mg/m <sup>3</sup> (dust) PEL 0.2 mg/m <sup>3</sup> (fume) TLV 0.1 mg/m <sup>3</sup> (fume) PEL
Zinc	Zinc	7440-66-6	3-5	2 mg/m <sup>3</sup> (respirable) TLV (ZnO) 10 mg/m <sup>3</sup> (respirable) TLV – STEL (ZnO) 5 mg/m <sup>3</sup> (respirable) PEL (ZnO) 15 mg/m <sup>3</sup> (total) PEL (ZnO)
Tin	Tin	7440-31-5	3-5	2 mg/m <sup>3</sup> (dust) TLV 2 mg/m <sup>3</sup> (dust) PEL 2 mg/m <sup>3</sup> (SnO) TLV

### SECTION 3: HAZARD IDENTIFICATION

Primary Route of Exposure:	Inhalation and skin.
Signs and Symptoms of Exposure:	<p>General handling of metal products typically do not present a health hazard. Sharp metal edges may cause skin cuts.</p> <p>Upon welding, cutting, or welding on materials the following signs and symptoms of exposure:</p> <p>Dusts and fumes generated during welding, cutting or welding activities can cause irritation to the eyes, respiratory tract and mucous membranes.</p> <p>Inhalation of the zinc oxide fume and can cause metal fume fever, symptoms including muscular pain, chills, nausea and vomiting. Symptoms typically last for 24-48 hours, and are not life-threatening nor cause any permanent damage.</p>

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	<p>Accumulation of zinc oxide dust can cause skin eruptions, typically in warm and moist areas of the body.</p> <p>Exposures to high concentrations of copper may cause gastrointestinal distress and conditions similar to metal fume fever. Additionally, a metallic or sweet taste sensation and/or discoloration of the skin and hair may occur in some instances to high exposures.</p>
Medical Conditions Aggravated by Exposure:	As a fume or dust, chronic respiratory disorders, including (but not limited to) asthma, chronic bronchitis and emphysema.
Chronic Effects:	<p>No chronic effects are expected due to general handling of metal products.</p> <p>Upon heating of this material (e.g., welding, cutting, or welding), the following chronic effects may occur:</p> <p>Exposure to dust and fume of tin can cause a mild pneumoconiosis, called stannosis.</p>
Carcinogenicity:	None.

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#### SECTION 4: FIRST AID MEASURES

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First Aid Procedures:	<p>Treat skin cuts via washing wound with soap and clean water, and apply antibiotic.</p> <p>If particles from this material contact the eyes, hold eyelids open and flush immediately with a gentle stream of water for at least 15 minutes, preferably at an eyewash fountain. If particles become imbedded, or irritation continues, get medical attention. Following skin contact, clean immediately by washing affected area with soap and water. In case of inhalation of fumes or dusts, remove to fresh uncontaminated air. Administer oxygen if breathing is labored. Give artificial respiration if breathing has stopped. Get medical attention immediately if oxygen or artificial respiration are administered. While an unlikely means of exposure, in case of accidental ingestion, do not induce vomiting. Get medical attention and advise the physician of the nature of the material.</p>
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#### SECTION 5: FIRE FIGHTING PROCEDURES

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Suitable Extinguishing Media:	Not applicable. Material will not burn unless involved in an intense fire supported by surrounding materials. In this case, extinguish using suitable media for surrounding materials.
Hazardous Combustion Products:	Various metal oxides and carbon oxides.
Recommended Fire Fighting Procedures:	No special procedures recommended for solid material. Do not permit water to come in contact with molten metal.
Unusual Fire and Explosion Hazards:	None for solid material. Small chips, dust or other fines may be readily ignitable, generating considerable heat. Molten metal will splatter when it comes in contact with water.

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#### SECTION 6: PRECAUTIONS FOR SAFE HANDLING AND USE

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Steps to Be Taken in Case	Not Applicable for solid material. When cleaning up fine dusts, avoid creating airborne dust. Use non-sparking tools, and
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Material is Released or Spilled:      avoid water.  
 Precautions to Be Taken in              Keep dry.  
 Handling and Storing:

### SECTION 7: EXPOSURE CONTROLS / PERSONAL PROTECTION

**Ventilation:**                              Activities involving the generation of high amounts of fine dusts and/or fumes should be evaluated to determine if additional local exhaust is necessary. If a local exhaust system is used, explosion-proof equipment may be warranted.

**Respiratory Protection:**              Activities involving the generation of high amounts of fine dusts and/or fumes should be evaluated to determine if a NIOSH approved air purifying respirator may be appropriate based on employer-determined exposure levels. Air supplied or SCBA respirators may be required when the measured chemical concentration exceeds the capacity of the air purifying respirator or when personal exposure levels are unknown.

**Eye Protection:**                         Safety glasses with side shields may be warranted when cutting or grinding on this product. Employer-determined protective eye ware for welding, torching or other hot-work activities is required.

**Skin Protection:**                         Cut-resistant gloves may be warranted while handling solid material. Welding or other hot-work gloves may be warranted when carrying out welding, cutting or other hot-work activities involving this material.

**Other:**                                         Other protective clothing may be warranted depending upon the activities involving this material. The employer must make this determination.

**Work / Hygienic Practices:**            Wash exposed skin prior to eating, drinking or smoking and at the end of each shift.

### SECTION 8: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance and Odor:</b>	Solid metallic gray color, with no odor.		
<b>Flash Point:</b>	Not Applicable	<b>Lower Explosive Limit:</b>	Not Applicable
<b>Method Used:</b>	Not Applicable	<b>Upper Explosive Limit:</b>	Not Applicable
<b>Evaporation Rate:</b>	Not Applicable	<b>Boiling Point:</b>	Not Applicable
<b>pH (undiluted product):</b>	Not Applicable	<b>Melting Point:</b>	1980 °F (copper) 390 °F (coating)
<b>Solubility in Water:</b>	Negligible	<b>Specific Gravity:</b>	8.9
<b>Vapor Density:</b>	Not Applicable	<b>Percent Volatile:</b>	Not Applicable
<b>Vapor Pressure:</b>	Not Applicable		

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SECTION 9: STABILITY AND REACTIVITY

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Thermal Stability:	Stable
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	None when material is in solid form. When dusts, chips or other fines are present, avoid water, strong oxidizers, acids, alkalis, and halogenated compounds.

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SECTION 10: TRANSPORTATION

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Regulatory Agency:	Not Regulated
Proper Shipping Name:	Not Applicable
Hazard Classification:	Not Applicable
Identification Number:	Not Applicable
Labels Required:	Not Applicable
Other Requirements:	Not Applicable

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SECTION 11: MISCELLANEOUS INFORMATION

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Additional Comments:	None.
Date of Previous MSDS:	March 16, 2009
Changes Since Previous MSDS:	Company name change
Telephone Number for Additional Information:	(317) 575-7190

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DISCLAIMER

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