



Safety Data Sheet

Issue Date: 17-Sep-2008

Revision Date: 5-Sep-2014

Version 1.1

1. IDENTIFICATION

Product Identifier

Product Name Copper Clad Aluminum Wire

Other means of identification

SDS # 00003

Recommended use of the chemical and restrictions on use

Recommended Use Data and signal wire.

Details of the supplier of the safety data sheet

Supplier Address

Copperweld Bimetallics LLC
Fayetteville Operation
254 Cotton Mill Road
Fayetteville, TN 37334
1-931-433-7177

Emergency Telephone Number

Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Reddish metallic solid
copper cladding over grayish-white solid
aluminum core wire

Physical State Solid

Classification

This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

Hazards Not Otherwise Classified (HNOC)

None known

Other Hazards

May cause metal fume fever
Prolonged or repeated exposure to copper can discolor skin and hair and irritate the skin

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Aluminum	7429-90-5	65
Copper	7440-50-8	35

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin Contact	Wash off immediately with soap and plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. (Get medical attention immediately if symptoms occur.).
Inhalation	May cause metal fume fever. Remove to fresh air.
Ingestion	Not an expected route of exposure. Call a physician immediately.

Most important symptoms and effects

Symptoms	Not determined.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use a Class D dry-powder extinguisher or dry sand.

Unsuitable Extinguishing Media DO NOT USE WATER. Do not use halogenated extinguishing agents or foam.

Specific Hazards Arising from the Chemical

Powders, dusts, shavings, borings, turnings or cuttings may explode or burn with explosive violence.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Use personal protection recommended in Section 8.
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Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Clean-Up	Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.
Incompatible Materials Oxidizers. Alkali. Acetylene. Phosphorus. Reacts violently with ammonium nitrate, bromates, iodates, chlorates, ethylene oxide, hydrozoic acid, potassium oxide, dimethyl sulfoxide plus trichloroacetic acid, hydrogen peroxide, sodium peroxide, sodium azide, sulfuric acid, hydrogen sulfide plus air, and lead azide. Copper ignites on contact with chlorine, fluorine (above 121 C), chlorine trifluoride, and hydrazinun nitrate (above 70 C).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Aluminum 7429-90-5	TWA: 1 mg/m ³ respirable fraction	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 5 mg/m ³ Al Aluminum	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust TWA: 5 mg/m ³ Al
Copper 7440-50-8	TWA: 0.2 mg/m ³ fume TWA: 1 mg/m ³ Cu dust and mist	TWA: 0.1 mg/m ³ fume TWA: 1 mg/m ³ dust and mist (vacated) TWA: 0.1 mg/m ³ Cu dust, fume, mist	IDLH: 100 mg/m ³ dust, fume and mist IDLH: 100 mg/m ³ Cu dust and mist TWA: 1 mg/m ³ dust and mist TWA: 0.1 mg/m ³ fume TWA: 1 mg/m ³ Cu dust and mist

Appropriate engineering controls

Engineering Controls During welding, grinding, and/ or burning proper general and/ or local ventilation may be required. Special ventilation provisions may be required to avoid explosion hazards.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Use chemical safety goggles and/or full-face shield where dusting is possible.

Skin and Body Protection Wear suitable protective clothing.

Respiratory Protection If dust or fume is expected, use approved dust filter respirator or dust mask, designed for use where concentration exceeds exposure limits.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical State	Solid		
Appearance	Reddish metallic solid copper cladding over grayish-white solid aluminum core wire	Odor	Not determined
Color	Mild steel	Odor Threshold	Not determined
Property	Values	Remarks	Method
pH	Not determined		
Melting Point/Freezing Point	1082.8 °C		
Boiling Point/Boiling Range	2595 °C		
Flash Point	Not determined		

Evaporation Rate	Not determined
Flammability (Solid, Gas)	Not determined
Upper Flammability Limits	Not determined
Lower Flammability Limit	Not determined
Vapor Pressure	Not determined
Vapor Density	Not determined
Specific Gravity	Not determined
Water Solubility	Insoluble in water
Solubility in other solvents	Not determined
Partition Coefficient	Not determined
Auto-ignition Temperature	Not determined
Decomposition Temperature	Not determined
Kinematic Viscosity	Not determined
Dynamic Viscosity	Not determined
Explosive Properties	Not determined
Oxidizing Properties	Not determined
Density	0.125 lbs/cubic inch

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to Avoid

Keep out of reach of children.

Incompatible Materials

Oxidizers. Alkali. Acetylene. Phosphorus. Reacts violently with ammonium nitrate, bromates, iodates, chlorates, ethylene oxide, hydrozoic acid, potassium oxide, dimethyl sulfoxide plus trichloroacetic acid, hydrogen peroxide, sodium peroxide, sodium azide, sulfuric acid, hydrogen sulfide plus air, and lead azide. Copper ignites on contact with chlorine, fluorine (above 121 C), chlorine trifluoride, and hydrazinum nitrate (above 70 C).

Hazardous Decomposition Products

Extreme temperatures can generate metal fume.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Welding or burning of material will generate fumes Overexposure to fumes may cause a flu-like condition called metal fume fever Prolonged inhalation overexposure to dust or fume may result in the accumulation of iron oxide in the lung, a condition with few or no symptoms
Eye Contact	Not determined.
Skin Contact	Not determined.
Inhalation	Not determined.
Ingestion	Not determined.

Component Information

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Carcinogenic potential is unknown.

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Copper 7440-50-8	0.0426 - 0.0535: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 0.031 - 0.054: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	0.0068 - 0.0156: 96 h Pimephales promelas mg/L LC50 0.3: 96 h Pimephales promelas mg/L LC50 static 0.2: 96 h Pimephales promelas mg/L LC50 flow-through 0.052: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 1.25: 96 h Lepomis macrochirus mg/L LC50 static 0.3: 96 h Cyprinus carpio mg/L LC50 semi-static 0.8: 96 h Cyprinus carpio mg/L LC50 static 0.112: 96 h Poecilia reticulata mg/L LC50 flow-through		0.03: 48 h Daphnia magna mg/L EC50 Static

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Not determined

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations. Material should be saved for recovery and/or recycling if possible.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

Chemical Name	California Hazardous Waste Status
Aluminum 7429-90-5	Ignitable powder
Copper 7440-50-8	Toxic

14. TRANSPORT INFORMATION

Note	Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.
DOT	Not regulated
IATA	Not regulated
IMDG	Not regulated

15. REGULATORY INFORMATION

International Inventories

Not determined

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Copper 7440-50-8	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

SARA 313

Not determined

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Aluminum - 7429-90-5	7429-90-5	65	1.0
Copper - 7440-50-8	7440-50-8	35	1.0

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Copper 7440-50-8 (35)		X	X	

US State Regulations

U.S. State Right-to-Know Regulations

Not determined

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Aluminum 7429-90-5	X	X	X
Copper 7440-50-8	X	X	X

16. OTHER INFORMATION

NFPA	Health Hazards	Flammability	Instability	Special Hazards
	Not determined	Not determined	Not determined	Not determined
HMIS	Health Hazards	Flammability	Physical Hazards	Personal Protection
	0	0	0	X

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Revision Note: New logo/product name

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet