ROMANOFF®
INTERNATIONAL SUPPLY CORPORATION

SDS / SAFETY DATA SHEET
ITEM# 70-500 ROMAGOLD

SECTION 1: Identification of the Substance or Mixture:

1.1. Product Identifier

Product name Item# 70-500 Romagold - custom blend of metal including Zinc which is added to gold as a filler when casting

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : For casting or welding or consumables and related products

Company/Undertaking Identification:

1.3. Details of the Supplier of the Safety Data Sheet

ROMANOFF INTERNATIONAL SUPPLY CORPORATION
9 DEFOREST STREET
AMITYVILLE, NEW YORK 11701
TEL: 631-842-2400

1.4. Emergency Telephone Number

This product is sold for Industrial and Commercial use. This SDS has been developed to address safety concerns of those individuals working with bulk quantities of this material, as well as those of potential users of this product in industrial/occupational settings. ALL United States Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalent Standards, and Canadian WHMIS [Controlled Products Regulations] and the Global Harmonization Standard required information is included in appropriate sections based on the U.S. ANSI Z400.1-2008 format. This product has been classified in accordance with the hazard criteria of the countries listed above.

CHEMTEL, ACCOUNT #MIS4594445 COLLECT CALLS ACCEPTED
USA, CANADA 1-800-255-3924 AUSTRALIA: 1-300-954-583
BRAZIL: 0-800-591-6042 CHINA: 400-120-0751 INDIA: 000-800-100-4086
MEXICO: 01-800-099-0731 ALL OTHER COUNTRIES: 1-813-248-0585

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

General Hazard Statement: Copper and copper alloys are generally classified as "articles" and do not constitute a hazardous material in solid form under the definitions of the OSHA Hazard Communication Standard (29 CFR 1910.1200). Any articles manufactured from these solid products would be generally classified as non-hazardous. However some hazardous elements contained in these products can be emitted under certain processing conditions such as but not limited to: burning, melting, cutting, sawing, brazing, grinding, machining, milling, and welding. Products in the solid state present no fire or explosion hazard. Small chips, fines, and dust may ignite readily, though. The following classification information is for the hazardous elements which may be released during processing.

The GHS Classification below pertains to these emitted products during these processes.

SYMBOLS	HAZARD	GHS CLASSIFICATION	HAZARD STATEMENTS
	Carcinogenicity	Category – 2	May cause cancer
	Respiratory Sensitizer	Category – 1	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
	Toxic to Reproduction	Category – 1B	May cause genetic effects.
	STOT (repeated exposure)	Category – 1	Causes damage to organs through prolonged or repeated exposure.
	Skin Sensitizer	Category – 1	May cause allergic skin reaction.
	STOT (single exposure)	Category – 1	May cause respiratory irritation.
	Acute Toxic to Aquatic Life	Category – 1	Very toxic to aquatic life.
	Chronic Toxic to Aquatic Life	Category – 1	Very toxic to aquatic life with long lasting effects.
	Flammable Solid	Category – 1	Dust or Grindings may be flammable
N/A	Eye Irritation	Category – 2B	Causes eye irritations.

PRECAUTIONARY STATEMENTS:

PREVENTION	FIRST AID RESPONSE
Do not breathe dust/fume/gas/vapors/spray. Use in a well-ventilated area. Avoid generating dust. Dusts and fines from processing may be ignitable. Use personal protective equipment as required. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Obtain special instructions before use. Do not handle until all safety precautions have been read & understood. Contaminated work clothing should not be allowed out of the workplace.	EYES: Flush eyes with plenty of water for at least 15 minutes. Seek medical attention if eye irritation persists. SKIN: Wash affected area with mild soap and water. Seek medical attention if skin irritation persists. INHALATION: Remove to fresh air. Check for clear airway, breathing and presence of pulse. If necessary administer CPR. Consult a physician immediately. INGESTION: Dust may irritate mouth and gastrointestinal tract. If ingested, seek medical attention.
STORAGE	**DISPOSAL**
Store away from strong acids, alkalis and oxidizers. Store away from mercury, acetylene and halogens. Store in accordance with federal/ provincial/state or local regulations.	Copper should be recycled whenever possible. Otherwise, dispose of in accordance with applicable federal/ provincial/state or local regulations.

HAZARD NOT OTHERWISE CLASSIFIED (HNOC): Not applicable.

NOTES:

STOT – Specific Target Organ Toxicity

GHS-US classification

Flammable Solid – Category 1
Eye Damage/Irritation - Category 2B
Respiratory Sensitizer - Category 1
Skin Sensitizer - Category 1

Germ Cell Mutagenicity - Category 2
Carcinogenicity - Category 1B
H317
H350
Specific Target Organ Toxicity (Repeated Exposure) - Category 1 H372
Hazardous to the Aquatic Environment - Acute Hazard - Category 1 H400
Hazardous to the Aquatic Environment - Chronic Hazard - Category 2 H411

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) : GHS02 GHS07 GHS08 GHS09

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H317 - May cause an allergic skin reaction
H400 - Very toxic to aquatic life
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) : P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P264 - Wash thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P308+P313 - IF exposed or concerned: Get medical advice/attention
P314 - Get medical advice and attention if you feel unwell
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P391 - Collect spillage
P405 - Store locked up
P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other Hazards

No additional information available

2.4. Unknown Acute Toxicity (GHS-US)

SECTION 3: Composition/information on ingredients

3.1. Substances

This substance is not considered hazardous in the form supplied. Dusts in sufficient concentrations can form explosive mixtures with air.

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%	GHS-US classification
CHEMICAL NAME	CAS NUMBER	% BY WEIGHT	
Copper	7440-50-8	70-99.9	
Zinc	7440-66-6	0-34.0	
Nickel	7440-02-0	0-30.0	
Aluminum	7429-90-5	0-11.0	
Lead	7439-92-1	0-9.0	
Iron	7439-89-6	0-4.0	
Silicon	7440-21-3	0-3.0	
Tin	7440-31-5	0-3.0	
Manganese	7439-96-5	0-1.0	
Tellurium	13494-80-9	0.50	
Phosphorus	7723-14-0	0-0.25	

NOTES:
For exact composition, refer to analysis supplied with product or specifications provided in the Alloy Chart

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : If exposed to excessive levels of dusts or fumes, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

First-aid measures after skin contact : Maintain Good Personal Hygiene. Wash area with mild soap and flush with water for at least 15 minutes. Seek medical attention if irritation develops or persists.

First-aid measures after eye contact : Immediately flush eyes with water and continue washing for at least 15 minutes. Obtain medical attention if discomfort persists.

First-aid measures after ingestion : Do NOT induce vomiting. Get immediate medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : Short-term (acute) overexposure to the gases, fumes, and dusts may include irritation of the eyes, lungs, nose, and throat. Some toxic gases associated with welding may cause pulmonary edema, asphyxiation, and death.

Acute overexposure may include signs and symptoms such as watery eyes, nose and throat irritation, headache, dizziness, difficulty in breathing, frequent coughing, or chest pain Excessive inhalation of fumes may cause "Metal Fume Fever" with Flu-like symptoms such as chills, fever, body aches, vomiting, sweating, etc.

Symptoms/injuries after skin contact : Dusts may cause irritation.

Symptoms/injuries after eye contact : Causes eye irritation.

Symptoms/injuries after ingestion : Not an anticipated route of exposure during normal product handling.

4.3. Indication of any immediate medical attention and special treatment needed

Eliminate overexposure. Treat symptoms and seek proper medical attention.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use Class D extinguishing agents or sand on fires involving dusts or fines. Use extinguishers appropriate for surrounding materials. Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media : Do NOT use water on molten metal. Do NOT use water on dust, powder or fume fires.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Non-flammable. Not applicable for solid product

: Dusts from grinding operation may burn if they are ignited. Dust, powder and fumes are flammable when exposed to flame or by chemical reaction with oxidizing agents.

Explosion hazard : At temperatures above the melting point, fumes containing copper oxides and smaller amounts of other alloying elements may be liberated.

Molten metal in contact with water may be explosive. Dusts from grinding operation may burn if they are ignited. Dust, powder and fumes are flammable when exposed to flame or by chemical reaction with oxidizing agents.

5.3. Advice for firefighters

Protection during firefighting : Firefighters should wear full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Not applicable to copper alloys in solid state. Avoid dust formation. Ensure adequate ventilation. Clean-up personnel should be protected against contact with eyes and skin protection.

6.1.1. For non-emergency personnel

If product is molten, contain the flow using dry sand or salt flux as a dam. All tools and containers which come in contact with molten metal must be preheated or specially coated and rust free. Allow the spill to cool before re-melting as scrap.

6.1.2. For emergency responders

Keep people away from and upwind of spill/leak. Wear appropriate protective clothing and respiratory protection for the situation

6.2. Environmental precautions

Avoid release to the environment. If molten, prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system

6.3. Methods and material for containment and cleaning up

For containment : Solid metal does not pose any problems. Dust spills should be cleaned up avoiding dust generation. Wash down with water if in contact with acids. Avoid inhalation of dusts. Collect scrap copper alloy for recycling.

Methods for cleaning up : Attempt to reclaim the product, if this is possible.

6.4. Reference to other sections

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid generating dust and inhaling fumes. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Keep material dry. Avoid contact with sharp edges or heated material. Not applicable to copper alloys in solid form. Operations with the potential for generating high concentrations of airborne particulates should be evaluated and controlled as necessary. Practice good housekeeping. Avoid generating dusts. Avoid breathing metal fumes and/or dust. Eating, drinking or smoking should not be allowed in areas where this alloy is processed, handled or stored.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed in a dry and well-ventilated place.

Store away from strong acids, alkalis and oxidizers. Store away from mercury, acetylene and halogens.

7.3. Specific end use(s)

For Casting and welding or consumables and related products to be determined by intermediate and/or end users

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

The exposure limit for copper and copper alloy dusts has been established at 1 mg/m3 and metal fumes at 0.2 mg/m3 with ACGIH's TWA. The individual complex compounds within the fume may have lower exposure limits than the general fume.

CHEMICAL NAME	CAS NUMBER	TLV ACGIH (mg/m3)		
Copper	7440-50-8	1.0 (Dust) 0.2 (Fume)		
Iron	7439-89-6	5.0 (Respirable)		
Lead	7439-92-1	0.05 (Elemental)		
Manganese	7439-96-5	0.2 (as inorganic Mn)		
Nickel	7440-02-0	1.5 (Metal) 0.2 (Insoluble) 0.1 (Soluble)		
Phosphorus	7723-14-0	0.1 (yellow or white)		
Silicon	7440-21-3	10.0 (Inhalable) 3.0 (Respirable)		
Tin	7440-31-5	2.0		
Zinc	7440-66-6	2.0 (As zinc oxide - respirable)		
Tellurium	13494-80-9	0.1		
Aluminum	7429-90-5	1.0 (Respirable)		

NOTES:
Threshold Limit Values (TLV) established by the American Conference of Governmental Industrial Hygienists (ACGIH - 2011) are 8-hour Time Weighted Average concentrations unless otherwise noted.

Appropriate engineering controls	:	Provide general or local exhaust to minimize airborne concentrations during milling, grinding, melting and welding operations. Ventilation must be adequate to meet exposure standards.
Hand protection	:	Use impervious gloves such as neoprene, nitrile, or rubber for hand protection. Wear insulated gloves when Casting.
Eye protection	:	Wear safety glasses with side shields and/or goggles as necessary to prevent dust from entering eyes. When Casting, grinding or polishing, wear a face shield.
Skin and body protection	:	Wear head and body protection, which helps to prevent injury from radiation, sparks, flame and electrical shock. As a minimum wear protective gloves and a protective face shield. Protective clothing may include arm protectors, aprons, hats, shoulder protection. Train the employee not to touch recently cast product. Casters should never wear short sleeve shirts or short pants. Steel toe shoes should be worm when working with heavy materials and equipment.
Respiratory protection	:	If concentrations exceed established limits use NIOSH/MSHA approved particulate respirators (dust & fume or high efficiency dust / fume) when grinding or welding. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations
Hygiene Measures	:	Do not breathe vapors/dust. When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feeds.
Engineering Measures	:	Where feasible, enclose processes to prevent dust dispersion into the work area. Provide local exhaust when possible, and general ventilation as necessary, to keep airborne concentrations below exposure limits and as low as possible. Minimize airborne concentrations during milling, grinding, melting and welding operations.
Component Exposure Limits	:	

8.2. Exposure controls

Control Parameters at 0.2	:	The exposure limit for copper and copper alloy dusts has been established at 1 mg/m3 and metal fumes mg/m3 with ACGIH's TWA. The individual complex compounds within the fume may have lower exposure limits than the general fume. Please refer to TLV levels for each base metal in your alloy as listed in the analysis or chart.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

1. CHEMICAL AND PHYSICAL PROPERTIES

PHYSICAL STATE:	Solid	APPEARANCE:	Reddish Yellow or Gray/Silver metallic solid
ODOR:	Not Applicable	ODOR THRESHOLD:	Not Applicable
pH:	Not Applicable	MELTING POINT:	>1400 °F
BOILING POINT:	< 4200°F)	FLASH POINT (°C):	N/A
EVAPORATION RATE:	Not Applicable	FLAMMABILITY (solid, Gas):	Not flammable
UPPER FLAMMABLE LIMIT %:	Not Applicable	LOWER FLAMMABLE LIMIT %:	Not Applicable
VAPOR PRESSURE:	Not Applicable	VAPOR DENSITY:	Not Applicable
RELATIVE DENSITY:	5.81 to 8.90 g/cc	SPECIFIC GRAVITY:	No data
SOLUBILITY:	Not soluble	PARTITION COEFFICIENT:	No data
AUTO-IGNITION TEMP (°C):	Not Applicable	DECOMPOSITION TEMPERATURE:	No data
VISCOSITY:	Not Applicable		
OTHER INFORMATION:	Not Applicable		

9.2. Other information

Avoid contact with incompatible materials. Avoid conditions which create dust. Welding, burning, sawing, brazing, grinding or machining operations may generate dusts and fumes of metal oxides.

Molten metals may explode in contact with water. In the form of particles, metals may explode when exposed to strong acids, alkalis and oxidizers. Also, mercury, acetylene and halogens, halogenated acids, halogenated solvents, bromates, iodates or ammonium nitrate. Aluminum particles in contact with copper, lead or iron oxides can react vigorously with release of heat if there is a source of ignition or intense heat.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable in normal usage.

10.2. Chemical stability

Yes, in solid form, Copper and its alloys are stable under normal storage and handling conditions.

10.3. Possibility of hazardous reactions

HAZARDOUS POLYMERIZATION : Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS : Toxic metal fumes

10.4. Conditions to avoid

Copper reacts violently with hydrogen peroxide and other oxidizers. Reaction with acids could produce noxious gases. In contact with acids, hydrogen gas may evolve. Avoid dust formation. Molten metal can react violently with water or moisture.

10.5. Incompatible materials

Mercury, Halocarbons, Halogens, Oxidizing materials, Strong acids, Strong bases. Alloys in Powder form may be incompatible with water.

10.6. Hazardous decomposition products

In solid form, the Product, other than fire or explosion – does not decompose.

Toxic metal oxides, COx & NOx may be produced during a fire involving copper and copper alloys. Fumes and gases cannot be classified simply. The composition and quantity of both are dependent upon the process and procedure. Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include: the volume of the work area, the quality and the amount of ventilation, the position of the employees face with respect to the fume plume and the respiratory equipment used if any, as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from the cleaning and degreasing activities, molds, fluxes, release agents, etc.).

Gaseous reaction products may include carbon monoxide and carbon dioxide. If melting, casting or welding with this product, determine the composition and quantity of fumes and gases to which workers are exposed by taking an air sample from in the worker's breathing zone. Improve ventilation if exposures are not below limits. See Section 8.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

COMPONENT	LD50 ORAL	LD50	LD50 INHALATION	OTHER
Copper (7440-50-8)	**Unknown**	-	-	-
Iron (7439-89-6)	30,000 mg/kg Oral-Rat	-	-	-
Lead (7439-92-1)	Unknown	-	-	-
Manganese (7439-96-5)	9,000 mg/kg Oral-Rat	-	-	-
Nickel (7440-02-0)	>9,000 mg/kg Oral-Rat	-	-	-
Phosphorus (7723-14-0)	Unknown	-	-	-
Silicon (7440-21-3)	3,160 mg/kg Oral-Rat	-	-	-
Tin (7440-31-5)	700 mg/kg	-	-	-
Zinc (7440-66-6)	Unknown	-	-	-
Tellurium	20 mg/kg Oral-Mouse	-	-	-
Aluminum (7429-90-5	Unknown	-	-	-

LIKELY ROUTES OF ENTRY: None for copper & alloys in their natural solid form.
Inhalation of metal particulate or elemental oxide fumes generated during welding, burning, grinding or machining may pose acute or chronic health effects. In finely divided form, skin contact may produce localized irritation and/or contact dermatitis.

EYES: High concentrations of dust may cause irritation to the eyes. Fumes can cause eye irritations.

SKIN: May cause skin irritations. Prolonged skin contact with coated copper may cause skin irritation in sensitive individuals. Workers with anemia, kidney damage, digestive, respiratory, nervous systems, pregnant women and fertile females warrant particular attention.

INHALATION: Dust may irritate nose and throat. If heated, copper fumes may cause metal fume fever, a delayed, benign, transient flu-like condition.

SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS:
None for copper & copper alloys in their natural solid state.

EFFECTS OF ACUTE EXPOSURE TO MATERIAL:
COPPER & ZINC: Can cause metal fume fever, a metallic taste in the mouth, dryness or irritation of the throat, and coughing. After 4-48 hours symptoms can include sweating, shivering, headache, fever, muscle aches, nausea, vomiting, weakness, and tiredness.
TELLURIUM: Poison by ingestion.

EFFECTS OF CHRONIC EXPOSURE TO MATERIAL:

NICKEL: IARC lists metallic nickel under its Group 2B category - "possibly carcinogenic to humans". Nickel may cause skin sensitivity

COBALT: Cobalt dust may result in an asthma-like condition (cough, shortness of breath). IARC lists metallic cobalt under its Group 2B category - "possibly carcinogenic to humans".

IRON: Inhalation overexposures may cause a benign pneumoconiosis (siderosis) with few or no symptoms.

MANGANESE: Existing studies are inadequate to assess its carcinogenicity. Susceptible to Parkinson's disease, metal fume fever and kidney damage.

LEAD: May damage kidneys, liver, blood system and reproductive system. IARC lists lead under its Group 2B category - "possibly carcinogenic to humans".

STOT (Single Exposure): Causes damage to organs (kidneys, respiratory system).

STOT (Repeated Exposures): Respiratory system. Allergic skin reactions. Reproductive system.

MUTAGENICITY OF MATERIAL: Suspected of causing genetic effects.

REPRODUCTIVE EFFECTS: Lead is suspected as causing damage to the reproductive system.

TERATOGENICITY OF MATERIAL: N/A

CARCINOGENICITY OF MATERIAL: NICKEL: IARC lists metallic nickel under its Group 2B category - "possibly carcinogenic to humans".
COBALT: IARC lists metallic cobalt under its Group 2B category - "possibly carcinogenic to humans".
LEAD: IARC lists lead under its Group 2B category - "possibly carcinogenic to humans".

SYNERGISTIC MATERIALS: N/A

ASPIRATION HAZARD: No data.

SENSITIZATION OF MATERIAL; N/A

LD50 (of Material): Not established LC50 (of Material): Not established

NOTES:
STOT – Specific Target Organ Toxicity
International Agency for Research on Cancer (IARC) - Summaries & Evaluations (2008).
3rd Annual Report on Carcinogens as prepared by the National Toxicology Program (NTP).

SECTION 12: Ecological information

12.1. Toxicity

ECOTOXICITY: No data available for copper & alloys in their natural solid state. However, individual components of the material have been found to be toxic to the environment. Metal dusts may migrate into soil and groundwater and be ingested by wildlife.

COMPONENT	TOXICITY TO FISH	TOXICITY TO ALGAE	TOXICITY TO MICROORGANISMS
Copper	LC50 Fathead Minnow 96 hr. 0.0068-0.0156 mg/l	EC50 Freshwater Algae 72 hr. 0.0426-0.0535 mg/l	EC50 Water Flea 48 hr. 0.03 mg/l
Iron	LC50 Common Carp 96 hr. 0.56 mg/l	-	-
Lead	LC50 Common Carp 96 hr. 0.44 mg/l	-	EC50 Water Flea 48 hr. 0.0006 mg/l
Manganese	-	-	EC50 Water Flea 48 hr. 40 mg/l
Nickel	LC50 Common Carp 96 hr. 1.3 mg/l	EC50 Freshwater Algae 72 hr. 0.18 mg/l	EC50 Water Flea 48 hr. 1.0 mg/l
Zinc	LC50 Fathead Minnow 96 hr. 2.16-3.05 mg/l	EC50 Freshwater Algae 72 hr. 0.09-0.125 mg/l	EC50 Water Flea 48 hr. 0.139-0.908 mg/l
Aluminum	LC50 Rainbow Trout 96 hr. 0.16 mg/l	-	EC50 Water Flea 24 hr. 3.5 mg/l

SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this material. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lb. (4,540 kg) therefore applies, per 40 CFR 370.20.

TSCA INVENTORY STATUS: The components of this material are listed on the Toxic Substances Control Act Inventory.

12.2. Persistence and degradability

No additional information available

12.3. Bio-accumulative potential

No additional information available

12.4. Mobility in soil

No data available for copper & alloys in their natural solid state. Individual metal dusts may migrate into soil and groundwater and be absorbed by plants

12.5. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with local/regional/provincial/national/international regulations. Recover Copper for recycling.

SECTION 14: Transport information

In accordance with DOT / ADR / RID / ADNR / IMDG / ICAO /IATA

DOT (DEPARTMENT OF TRANSPORTATION)	PROPER SHIPPING NAME: Not Regulated
ROAD AND RAIL (ADR/RID)	PROPER SHIPPING NAME: Not Regulated
AIR (ICAO/IATA)	SHIPPING NAME: Not Regulated
VESSEL (IMO/IMDG)	SHIPPING NAME: Not Regulated
CANADA TRANSPORT OF DANGEROUS GOODS	SHIPPING NAME: Not Regulated

14.1. UN number

Not a dangerous good in sense of transport regulations

14.2. UN proper shipping name

Not applicable

14.3 Transport Regulations

SECTION 15: Regulatory information

15.1. US Federal regulations

CHEMICAL NAME	SARA 302 (40 CFR 355, Appendix A)	SARA 304 (40 CFR Table 302.4)	SARA 313 (40 CFR 372.65)	CERCLA Reportable Quantities
Aluminum	No	No	Yes	None listed
Copper	No	No	Yes	5,000 lb.
Lead	No	No	Yes	10 lb.
Manganese	No	No	Yes	None listed
Nickel	No	No	Yes	100 lb.
Phosphorus	Yes	Yes	Yes	1 lb.
Zinc	No	No	No	1,000 lb.

SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this material. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lb. (4,540 kg) therefore applies, per 40 CFR 370.20.
TSCA INVENTORY STATUS: The components of this material are listed on the Toxic Substances Control Act Inventory.

CERCLA REPORTABLE QUANTITY (RQ): RQ's for Hazardous Substances in the Comprehensive Environmental Response, Compensation, and Liability Act are: Copper = 5000 lb. (2270 kg); Zinc = 1000 lb. (454 kg); Nickel = 100 lb. (45 kg).

CALIFORNIA (PROPOSITION 65):
The Lead component of this material is known in the State of California to cause cancer, and/or birth defects (or other reproductive harm).

The Nickel component of this material is known in the State of California to cause cancer. The Cobalt component of this material is known in the State of California to cause cancer.

OTHER U.S. FEDERAL REGULATIONS: Lead is regulated under 29 CFR 1910.1025.

ADDITIONAL EUROPEAN UNION REGULATIONS:
RoHS & WEEE:
This MSDS follows the European Union Directive "Restriction on the Use of Certain Hazardous Substances (RoHS) in Electrical and Electronic Equipment" (2002/95/EC) and the "Waste Electrical and Electronic Equipment (WEEE)" Directive (2002/96/EC).
Lead (Pb): Lead is present in this copper alloy at levels above the EU Directive limit of 0.1%.

Note, the EU Directive has a lead exemption limit of up to 4.0% as an alloying element in copper.
Chromium VI (Cr +6): The hexavalent oxidation state of chromium does not normally exist as part of a metal or alloy.

SECTION 16: Other information

Original Date: 01/01/2015 Review Date: 05/05/2015 Revision #: 001

Other information

MANUFACTURER DISCLAIMER:

Supplier believes that the information contained in this Material Safety Data Sheet (SDS) is accurate as of the "Date of Last Revision" specified on this SDS. As the condition or methods of use are beyond Supplier's control, we do not assume any responsibility and expressly disclaims any liability for any use of this material. The information relates only to typical properties of the product. Do not use the information for product performance or specification purposes. The information is for use by technically skilled persons at their own risk whom must determine the conditions of safe use of the products.

The information may not be valid for product use in combination with any other product or material or in any process. Supplier expressly disclaims any liability arising from any use of the product or any reliance on the information. Do not treat the information (a) as assurance that use of the product will not infringe patent or other rights or (b) as a license or grant of patent or other property rights.

Full text of H-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Skin Sens. 1	Sensitization — Skin, category 1
H302	Harmful if swallowed
H317	May cause an allergic skin reaction
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects

NFPA Health Hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA Fire Hazard : 0 - Materials that will not burn.

NFPA Reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 0 Minimal Hazard

Physical : 0 Minimal Hazard

HEALTH		1
FLAMMABILITY		1
PHYSICAL HAZARD		0
PERSONAL PROTECTION		E

*Denotes possible chronic hazard if airborne dusts or fumes are generated