



# SAFETY DATA SHEET

Issuing Date 17-Jul-2012

Revision Date 29-Oct-2024

Revision Number 17

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product identifier**

**Product Name** Copper Magnet Wire  
**Other means of identification**  
**Product Code(s)** COPPER MAGNET WIRE  
**Synonyms** Magnet Wire

**Recommended use of the chemical and restrictions on use**

**Recommended Use** Electrical Conductor.  
**Uses advised against** No information available

**Details of the supplier of the safety data sheet**

**Supplier Address**  
Essex Solutions USA LLC  
1601 Wall Street  
Fort Wayne, Indiana 46802  
Telephone 260.461.4000

**Emergency telephone number**

**Emergency Telephone** Chemtrec: 1-800-424-9300 for US/ 001 703-527-3887 outside US

## 2. HAZARDS IDENTIFICATION

**Classification**

**OSHA Regulatory Status**

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

**Label elements**

**Emergency Overview**

The product contains no substances which at their given concentration, are considered to be hazardous to health

**Appearance** Varies

**Physical state** solid

**Odor** None

**Hazards not otherwise classified (HNOC)**

Not Applicable

**Other Information**

Very toxic to aquatic life with long lasting effects

Very toxic to aquatic life

Unknown acute toxicity 100 % of the mixture consists of ingredient(s) of unknown toxicity

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance**

Not Applicable

**Mixture**

**Synonyms** Magnet Wire.

Chemical name	CAS No	Weight-%	Trade secret
Copper	7440-50-8	90 - 100%	*

#### 4. FIRST AID MEASURES

##### Description of first aid measures

<b>General advice</b>	This product is an article as sold. When the material is soldered, welded or hot staked it may release vapors or fumes from the degradation of the coating. All first aid measures assume welding or hot staking has occurred.
<b>Eye contact</b>	Exposure to fumes, vapors or smoke from thermally degraded product can cause irritation to eyes. Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	None under normal use.
<b>Inhalation</b>	Exposure to fumes, vapors or smoke from thermally degraded product can cause respiratory system irritation. Some of these component chemicals include low concentrations of phenol, cresols, and xylene, as well as burnt resinous material. Move victim to fresh air.
<b>Ingestion</b>	Not an expected route of exposure.
<b><u>Most important symptoms and effects, both acute and delayed</u></b>	

##### Symptoms

##### Indication of any immediate medical attention and special treatment needed

<b>Note to physicians</b>	Treat symptomatically.
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#### 5. FIRE-FIGHTING MEASURES

##### Suitable Extinguishing Media

Use water spray, fog, Carbon dioxide (CO<sub>2</sub>), foam or dry chemical.

**Unsuitable extinguishing media** Decomposition by contact with water may generate vapors which can be ignited by heat or open flame.

##### Specific hazards arising from the chemical

No information available.

##### Explosion data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

##### 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** Ensure adequate ventilation.

##### Environmental precautions

**Environmental precautions** See Section 12 for additional Ecological Information.

##### Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

#### 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** Incompatible with strong acids and bases. Acetylene gas and magnesium.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters****Exposure Limits**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Copper 7440-50-8	TWA: 0.2 mg/m <sup>3</sup> fume	TWA: 0.1 mg/m <sup>3</sup> fume TWA: 1 mg/m <sup>3</sup> dust and mist (vacated) TWA: 0.1 mg/m <sup>3</sup> Cu dust, fume, mist	IDLH: 100 mg/m <sup>3</sup> dust, fume and mist TWA: 1 mg/m <sup>3</sup> dust and mist TWA: 0.1 mg/m <sup>3</sup> fume

**Appropriate engineering controls**

**Engineering controls**                      Showers  
   Eyewash stations  
   Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**                      No special protective equipment required  
**Skin and body protection**                No special protective equipment required.  
**Respiratory protection**                No protective equipment is needed under normal use conditions. Exposure to fumes, vapors or smoke from thermally degraded product can cause respiratory system irritation. Some of these component chemicals include low concentrations of phenol, cresols, and xylene, as well as burnt resinous material. At extremely high temperatures toluene di-isocyanate (TDI) may be emitted from certain coated wire. TDI is considered a sensitizer and may be a carcinogen. Use only with adequate ventilation.

**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**

<b>Physical state</b>	solid	<b>Odor</b>	None
<b>Appearance</b>	Varies	<b>Odor threshold</b>	No information available
<b>Color</b>	No information available		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	No information available	No information available
<b>Melting point / freezing point</b>	1080 °C / 1975 °F	
<b>Boiling point / boiling range</b>	2595 °C / 4703 °F	
<b>Flash point</b>	No information available	(based on .?)
<b>Evaporation rate</b>	No information available	
<b>Flammability (solid, gas)</b>	No information available	
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit:</b>	No information available	
<b>Lower flammability limit:</b>	No information available	
<b>Vapor pressure</b>	No information available	
<b>Vapor density</b>	5	
<b>Relative density</b>	No information available	
<b>Water solubility</b>	Practically insoluble (~0.4 ug/mL)	
<b>Solubility in other solvents</b>	No information available	
<b>Partition coefficient</b>	No information available	
<b>Autoignition temperature</b>	No information available	
<b>Decomposition temperature</b>	No information available	
<b>Kinematic viscosity</b>	No information available	
<b>Dynamic viscosity</b>	No information available	
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	No information available	

**Other Information**

<b>Softening point</b>	No information available
<b>Molecular weight</b>	
<b>VOC Content (%)</b>	No information available
<b>Liquid Density</b>	No information available

**Bulk density** No information available

## 10. STABILITY AND REACTIVITY

### Reactivity

No data available

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

None under normal processing.

### Conditions to avoid

Extremes of temperature and direct sunlight.

### Incompatible materials

Incompatible with strong acids and bases. Acetylene gas and magnesium.

### Hazardous decomposition products

Carbon dioxide (CO<sub>2</sub>). Thermal decomposition can lead to release of irritating gases and vapors.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

At extremely high temperatures toluene di-isocyanate (TDI) may be emitted from certain polyurethane coated wire. TDI is considered a sensitizer and may be a carcinogen.

#### Inhalation

There is no data available for this product.

#### Eye contact

There is no data available for this product.

#### Skin contact

There is no data available for this product.

#### Ingestion

There is no data available for this product.

### Symptoms related to the physical, chemical and toxicological characteristics

#### Symptoms

No information available.

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

#### Sensitization

No information available.

#### Germ cell mutagenicity

No information available.

#### Carcinogenicity

No information available.

#### Reproductive toxicity

No information available.

#### Specific target organ toxicity (single exposure)

No information available.

#### STOT - repeated exposure

No information available.

#### Chronic toxicity

Prolonged exposure to fumes from welding or hot staking may cause chronic effects.

#### Target organ effects

Eyes, Lungs.

#### Aspiration hazard

No information available.

### Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	99,999.00	mg/kg
ATEmix (dermal)	99,999.00	mg/kg
ATEmix (inhalation-gas)	99,999.00	mg/l
ATEmix (inhalation-dust/mist)	99,999.00	mg/l
ATEmix (inhalation-vapor)	99,999.00	mg/l

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Very toxic to aquatic life with long lasting effects

2 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

### Persistence and degradability

No information available.

### Other adverse effects

No information available

### 13. DISPOSAL CONSIDERATIONS

#### Waste treatment methods

**Disposal of wastes** Dispose of in accordance with local regulations. Recyclable material. Please send to local recycling center.

**Contaminated packaging** Do not reuse container.

### 14. TRANSPORT INFORMATION

#### DOT

**IATA** Not regulated Essex magnet wire (also referred to as 'winding wire') consists of cured polymer coating applied to copper or aluminum metal conductor. Essex finished magnet wire holds no permanent magnetic field and no substantive electrical charge when packaged and transported in commerce.

**IMDG** Not regulated

### 15. REGULATORY INFORMATION

#### International Inventories

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

#### Legend:

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

**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

##### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Copper	7440-50-8	>90	1.0

##### SARA 311/312 Hazard Categories

<b>Acute health hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

##### CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Copper 7440-50-8	-	X	X	-

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	Reportable Quantity (RQ)
Copper 7440-50-8	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Copper 7440-50-8	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not Applicable

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

<b>NFPA</b>	Health hazards 1	Flammability 0	Instability 0	Physical and chemical properties -
<b>HMIS</b>	Health hazards 1	Flammability 0	Physical hazards 0	Personal precautions X

Prepared By Robert Distler  
 Issuing Date 17-Jul-2012  
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**Revision Note**  
 Updated Logo  
 Changed Company name  
 Section 15 - Verified most current CA Prop 65 (10/2024) information

**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