

## SAFETY DATA SHEET

Preparation Date: 12/27/2016

Revision date 4/9/2019

Revision Number: G2

### 1. IDENTIFICATION

#### Product identifier

**Product code:** C1345  
**Product Name:** COPPER METAL, LIGHT, TURNINGS

#### Other means of identification

**Synonyms:** No information available  
**CAS #:** 7440-50-8  
**RTECS #** GL5325000  
**CI#:** Not available

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

**Recommended use:** No information available.  
**Uses advised against** No information available

**Supplier:** Spectrum Chemical Mfg. Corp  
14422 South San Pedro St.  
Gardena, CA 90248  
(310) 516-8000

**Order Online At:** <https://www.spectrumchemical.com>  
**Emergency telephone number** Chemtrec 1-800-424-9300  
**Contact Person:** Tom Tyner (USA - West Coast)  
**Contact Person:** Ibad Tirmiz (USA - East Coast)

### 2. HAZARDS IDENTIFICATION

#### Classification

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

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

#### Label elements

Not classified

#### Hazards not otherwise classified (HNOC)

Not Applicable

#### Other hazards

Not available

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight-%
Copper Metal	7440-50-8	100

### 4. FIRST AID MEASURES

#### First aid measures

<b>General Advice:</b>	National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.
<b>Skin Contact:</b>	Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops. Consult a physician if necessary.
<b>Eye Contact:</b>	Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.
<b>Inhalation:</b>	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Ingestion:</b>	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

#### Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	Health injuries are not known or expected under normal use Ingestion may cause nausea, vomiting, and diarrhea
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#### Indication of any immediate medical attention and special treatment needed

<b>Notes to Physician:</b>	Treat symptomatically.
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#### Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

### 5. FIRE-FIGHTING MEASURES

#### Extinguishing Media

<b>Suitable Extinguishing Media:</b>	The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.
<b>Unsuitable Extinguishing Media:</b>	No information available.
<b><u>Specific hazards arising from the chemical</u></b>	
<b>Hazardous combustion products</b>	If it is involved in a fire the following can be released: copper oxides.
<b>Specific hazards</b>	No information available.
<b><u>Special Protective Actions for Firefighters</u></b>	

**Specific Methods:** No information available

**Special Protective Equipment 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 protective equipment. Avoid contact with skin, eyes and clothing.

**Environmental precautions** Prevent further leakage or spillage if safe to do so.

**Methods and material for containment and cleaning up**

**Methods for containment** Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

**Methods for cleaning up** Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Technical Measures/Precautions:**  
Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

**Safe Handling Advice**  
Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not ingest. Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Technical Measures/Storage Conditions:**  
Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

**Incompatible Materials:**  
Oxidizing agents  
Strong bases  
Strong acids  
Ammonia

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**National occupational exposure limits**

**United States**

Component	CAS No	OSHA	NIOSH	ACGIH	AIHA WEEL
Copper Metal	7440-50-8	0.1 mg/m <sup>3</sup> TWA 1 mg/m <sup>3</sup> TWA	1 mg/m <sup>3</sup> TWA 0.1 mg/m <sup>3</sup> TWA	0.2 mg/m <sup>3</sup> TWA fume	None

**Canada**

Component	CAS No	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Copper Metal	7440-50-8	0.2 mg/m <sup>3</sup> TWA fume 1 mg/m <sup>3</sup> TWA dust and mist	1 mg/m <sup>3</sup> TWA dust and mist 0.2 mg/m <sup>3</sup> TWA fume	None	None

### Australia and Mexico

Component	CAS No	Australia	Mexico
Copper Metal	7440-50-8	1 mg/m <sup>3</sup> TWA 0.2 mg/m <sup>3</sup> TWA	0.2 mg/m <sup>3</sup> TWA 1 mg/m <sup>3</sup> TWA

### Appropriate engineering controls

#### Engineering measures to reduce exposure:

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

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

#### Personal Protective Equipment

- Eye protection:** Safety glasses with side-shields.
- Skin and body protection:** Chemical resistant apron  
Gloves  
Long sleeved clothing
- Respiratory protection:** Respiratory protection is not necessary for normal handling. Good room ventilation or use of local exhaust (fume hood) is sufficient.
- Hygiene measures:** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b> Solid	<b>Appearance:</b> Metal.	<b>Color:</b> Reddish.
<b>Odor:</b> Odorless.	<b>Taste</b> No information available.	<b>Formula</b> Cu
<b>Molecular/Formula weight (g/mole):</b> 63.54	<b>Flammability (solid, gas)</b> no data available	<b>Flashpoint (°C/°F):</b> No information available
<b>Flash Point Tested according to:</b> Not available	<b>Autoignition Temperature (°C/°F):</b> No information available	<b>Lower Explosion Limit (%):</b> No information available
<b>Upper Explosion Limit (%):</b> No information available	<b>Melting point/range(°C/°F):</b> 1083°C/1981.4°F	<b>Decomposition temperature(°C/°F):</b> No information available
<b>Boiling point/range(°C/°F):</b> 2595°C/4703°F	<b>Bulk density:</b> No information available	<b>Density (g/cm<sup>3</sup>):</b> No information available

**Specific gravity:**

**Product code:** C1345

**Product name:** COPPER METAL,  
LIGHT, TURNINGS

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**pH**  
No information available

**Vapor pressure @ 20°C (kPa):**  
No information available

**Evaporation rate:**  
No information available

**Vapor density:**  
No information available

**VOC content (g/L):**  
No information available

**Odor threshold (ppm):**  
No information available

**Partition coefficient (n-octanol/water):**  
No information available

**Viscosity:**  
No information available

**Miscibility:**  
No information available

**Solubility:**  
Insoluble in water

## 10. STABILITY AND REACTIVITY

### Reactivity

Reacts violently with ammonium nitrate, bromates, chlorates, iodates, chloride, ethylene oxide, hydrazine mononitrate, hydrazoic acid, potassium oxide, sodium azide

Finely divided copper will react with finely divided bromates (also chlorates or iodates) of barium, calcium, magnesium potassium sodium, or zinc explosively with heat, percussion, and sometimes light friction

Finely divided copper powder reacts violently on contact with oxidizing agents (such as perchlorates, peroxides, permanganates, chlorates, nitrates, chlorine, bromine, and fluorine), and acetylenes

### Chemical stability

**Stability:** Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Incompatible materials.

**Incompatible Materials:** Oxidizing agents  
Strong bases  
Strong acids  
Ammonia

**Hazardous decomposition products:** No information available.

### Other Information

**Corrosivity:** No information available

**Special Remarks on Corrosivity:** No information available

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

**Principal Routes of Exposure:**  
Ingestion. Inhalation.

### Acute Toxicity

### Component Information

Copper Metal
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CAS No	7440-50-8
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LD50/oral/rat = No information available  
LD50/oral/mouse = No information available  
LD50/dermal/rabbit = No information available  
LD50/dermal/rat = No information available  
LC50/inhalation/rat = No information available  
LC50/inhalation/mouse = No information available  
Other LD50 or LC50 information = No information available

#### Product Information

LD50/oral/rat =  
Value - Acute Tox = No information available

LD50/oral/mouse =  
Value - Acute Tox Oral = No information available

LD50/dermal/rabbit  
Value - Acute Tox = No information available

LD50/dermal/rat  
VALUE - Acute Tox Dermal = No information available

LC50/inhalation/rat  
VALUE-Vapor = No information available  
VALUE-Gas = No information available  
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse  
VALUE-Vapor = No information available  
VALUE - Gas = No information available  
VALUE - Dust/Mist = No information available

#### Symptoms

**Skin Contact:** Granular copper or copper turnings may cause cuts or skin irritation by mechanical action. Handling copper wire copper metal shot is not likely to cause skin irritation.

**Eye Contact:** Granular copper or copper turnings, or metal shot do not create dust during handling and will not cause eye irritation by mechanical action from dust formation. These forms of copper are only likely to cause irritation, uveitis, abscess or serious injury if a particle (piece) is lodged in the eye. Handling copper wire or foil will not cause eye irritation.

**Inhalation** It is not an inhalation hazard or will not cause respiratory tract irritation since the copper is not in powder form and will not create dust when handled.

**Ingestion** Ingestion may cause nausea, vomiting, diarrhea. It may affect the kidneys and liver.

**Aspiration hazard** No information available.

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

**Chronic Toxicity** Prolonged or repeated ingestion may affect the liver, and kidneys. Chronic copper poisoning from exposure to elemental copper is rare and has generally not been described in humans, except in individuals with Wilson disease, in which progressive copper toxicity results from hereditary metabolic disorder involving

deficiency in the copper-binding and transport protein ceruloplasmin.

**Sensitization:** No information available.

**Mutagenic Effects:** No information available

**Carcinogenic effects:** Not considered carcinogenic.

Component	CAS No	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Copper Metal	7440-50-8	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

*ACGIH (American Conference of Governmental Industrial Hygienists)*

*IARC (International Agency for Research on Cancer)*

*NTP (National Toxicology Program)*

*OSHA (Occupational Safety and Health Administration of the US Department of Labor)*

**Reproductive toxicity** No data is available

**Reproductive Effects:** No information available

**Developmental Effects:** No information available

**Teratogenic Effects:** No information available

**Specific Target Organ Toxicity**

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Target Organs:** No information available.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Ecotoxicity effects:** Aquatic environment.

*Copper Metal - 7440-50-8*

**Algae/aquatic plants**

EC50: 0.0426 - 0.0535mg/L (72h, Pseudokirchneriella subcapitata) EC50: 0.031 - 0.054mg/L (96h, Pseudokirchneriella subcapitata)

**Fish**

LC50: 0.0068 - 0.0156mg/L (96h, Pimephales promelas) LC50: <0.3mg/L (96h, Pimephales promelas) LC50: =0.2mg/L (96h, Pimephales promelas) LC50: =0.052mg/L (96h, Oncorhynchus mykiss) LC50: =1.25mg/L (96h, Lepomis macrochirus) LC50: =0.3mg/L (96h, Cyprinus carpio) LC50: =0.8mg/L (96h, Cyprinus carpio) LC50: =0.112mg/L (96h, Poecilia reticulata)

**Crustacea**

EC50: =0.03mg/L (48h, Daphnia magna)

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available.

**Mobility in soil** No information available

**Other adverse effects** No information available.

### 13. DISPOSAL CONSIDERATIONS

#### Disposal Methods

**Waste from residues / unused products:**

Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**

Empty containers should be taken for local recycling, recovery or waste disposal

Component	CAS No	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Copper Metal	7440-50-8	None	None	None	None

### 14. TRANSPORT INFORMATION

**DOT**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class** No information available  
**Subsidiary Class** No information available  
**Packing group:** No information available  
**Emergency Response Guide Number** No information available  
**Marine Pollutant** No data available  
**DOT RQ (lbs):** No information available  
**Special Provisions** No Information available  
**Symbol(s):** No information available  
**Description:** No information available

**TDG (Canada)**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**Marine Pollutant** No Information available  
**Description:** No information available

**ADR**

**UN Number** Not regulated  
**Proper Shipping Name:** No information available  
**Transport hazard class(es)** No information available  
**Packing group** No information available  
**Subsidiary Risk:** No information available

**IMDG**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**Marine Pollutant** No information available

**RID**

**UN Number** Not Regulated



**Proper Shipping Name:** No information available  
**Transport hazard class(es)** No information available  
**Subsidiary Risk:** No information available  
**Packing group** No information available

**ICAO (air)**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available

**IATA**

**UN Number** Not Regulated  
**Proper Shipping Name:** No information available  
**Transport hazard class(es)** No information available  
**Subsidiary Risk:** No information available  
**Packing group** No information available  
**Precautionary Statements - Response** No information available  
**Special Provisions** No information available

<b>15. REGULATORY INFORMATION</b>
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**International Inventories**

Component	CAS No	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	China IECSC	Australia (AICS)	EINECS-No.
<i>Copper Metal</i>	7440-50-8	PresentACTIVE	Present KE-08896	Present	Not present	Present	Present	Present 231-159-6

**U.S. Regulations**

*Copper Metal*

**Massachusetts RTK:** Present  
**New Jersey RTK Hazardous Substance List:** 0528  
**New Jersey (EHS) List:** 0528 500 lb TPQ  
**New Jersey - Discharge Prevention - List of Hazardous Substances:** Present  
**Pennsylvania RTK:** Environmental hazard  
**Pennsylvania RTK - Environmental Hazard List** Present  
**Michigan - Critical Materials List:** Present  
**Minnesota - Hazardous Substance List:** Present  
**New York Release Reporting - List of Hazardous Substances:**  
 5000 lb RQ  
 100 lb RQ  
**Louisiana Reportable Quantity List for Pollutants:** 5000lbfinal RQAs listed in 40 CFR 302.4 Table 302.4. No reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is  $\geq 100 \mu\text{m}$   
 2270kgfinal RQAs listed in 40 CFR 302.4 Table 302.4. No reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is  $\geq 100 \mu\text{m}$   
 100lbRQAs listed in Louisiana Administrative Code, Title 33, Part 1, Subpart 2, Chapter 39, Subchapter E. Applies to unauthorized emissions based on total mass emitted into the atmosphere. No reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is  $\geq 100 \mu\text{m}$   
 5000lbRQAs listed in Louisiana Administrative Code, Title 33, Part 1, Subpart 2, Chapter 39, Subchapter E. Applies to unauthorized emissions based on total mass emitted into or onto all media within any consecutive 24-hour period. No reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is  $\geq 100 \mu\text{m}$   
**California Directors List of Hazardous Substances:** Present

**California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.**

**Chemicals Known to the State of California to Cause Cancer:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

**Chemicals Known to the State of California to Cause Reproductive Toxicity:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Component	CAS No	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Copper Metal	7440-50-8	Not Listed	Not Listed	Not Listed	Not Listed

**CERCLA/SARA**

Component	CAS No	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Copper Metal	7440-50-8	5000 lb final RQ 2270 kg final RQ	None	None	None	1.0 % de minimis concentration

**U.S. TSCA**

Component	CAS No	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Copper Metal	7440-50-8	Not Applicable	Not Applicable

**Canada****WHMIS 2015 - GHS Classifications**

WHMIS 2015 Hazard Classification Information:

Component  
Copper Metal  
7440-50-8 ( 100 )

WHMIS 2015 Hazard Classification  
Acute toxicity - Oral - Category 4: H302 Harmful if swallowed.;  
Combustible Dust - Category 1: May form combustible dust concentrations in air (factors such as combustibility and explosiveness of dusts including composition and shape and size of particles could cause substance to belong to 'Combustible dust' hazard class)

**Canada Hazardous Products Regulation** This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

**DSL/NDSL**

Component	CAS No	Canada (DSL)	Canada (NDSL)
Copper Metal	7440-50-8	Present	Not Listed

Component	CAS No	CEPA Schedule I - Toxic Substances
Copper Metal	7440-50-8	Not listed
Component	CAS No	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Copper Metal	7440-50-8	Not listed

**EU Classification****EU GHS - SV - CLP 1272/2008**

Component	CAS No	EU GHS - SV - CLP (1272/2008)

Copper Metal	7440-50-8	
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EU - CLP (1272/2008)

**R-phrase(s)**

not determined (not applicable)

**S -phrase(s)**

none

Component	CAS No	Classification	Concentration Limits:	Safety Phrases
Copper Metal	7440-50-8		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

**Indication of danger:**

None

**16. OTHER INFORMATION**

Preparation Date: 12/27/2016  
Revision date 4/9/2019  
Prepared by: Sonia Owen

**Disclaimer:**

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**