Material Safety Data Sheet
Copper, shot and light turnings

ACC# 91832

Section 1 - Chemical Product and Company Identification

MSDS Name: Copper, shot and light turnings
Catalog Numbers: C430-500, C575-500, S799781
Synonyms: None.
Company Identification:
  Fisher Scientific
  1 Reagent Lane
  Fair Lawn, NJ 07410
For information, call: 201-796-7100
Emergency Number: 201-796-7100
For CHEMTREC assistance, call: 800-424-9300
For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
<th>EINECS/ELINCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>7440-50-8</td>
<td>COPPER</td>
<td>100</td>
<td>231-159-6</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: red to brown solid.

**Warning!** Causes respiratory tract irritation. Causes eye and skin irritation. May cause lung damage. Inhalation of fumes may cause metal-fume fever. May cause liver and kidney damage. **Target Organs**: Kidneys, liver, lungs.

**Potential Health Effects**

Eye: Causes eye irritation.
Skin: Causes skin irritation. May cause skin discoloration.
Ingestion: Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause liver and kidney damage.
Inhalation: Dust is irritating to the respiratory tract. Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count.
Chronic: Prolonged or repeated skin contact may cause dermatitis. May cause liver and kidney damage. May cause lung damage.

Section 4 - First Aid Measures
Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.
Ingestion: Call a poison control center. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Notes to Physician: Individuals with Wilson's disease are more susceptible to chronic copper poisoning.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Material can spontaneously ignite (pyrophoric) when exposed to air at normal or slightly elevated temperatures.

Extinguishing Media: Use extinguishing media most appropriate for the surrounding fire.
Flash Point: Not applicable.
Autoignition Temperature: Not applicable.
Explosion Limits, Lower: Not available.
Upper: Not available.
NFPA Rating: (estimated) Health: 2; Flammability: 1; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions.

Section 7 - Handling and Storage

Handling: Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with skin and eyes. Avoid ingestion and inhalation.
Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Do not expose to air.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
</table>

https://fscimage.fishersci.com/msds/91832.htm 2/2/2005
COPPER  
0.2 mg/m³ TWA (fume); 1 mg/m³ TWA (dusts and mists, as Cu)  
1 mg/m³ TWA (dust and mist) 100 mg/m³ IDLH (dust, mist and fume)  
0.1 mg/m³ TWA (fume); 1 mg/m³ TWA (dusts and mists)

**OSHA Vacated PELs:** COPPER: 0.1 mg/m³ TWA (fume, dusts, mists as Cu)  
**Personal Protective Equipment**  
**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA’s eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.  
**Skin:** Wear appropriate gloves to prevent skin exposure.  
**Clothing:** Wear appropriate protective clothing to minimize contact with skin.  
**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

### Section 9 - Physical and Chemical Properties

**Physical State:** Solid  
**Appearance:** red to brown  
**Odor:** none reported  
**pH:** Not available.  
**Vapor Pressure:** 1 mm Hg @ 1628°C  
**Vapor Density:** Not available.  
**Evaporation Rate:** Not applicable.  
**Viscosity:** Not applicable.  
**Boiling Point:** 2595 deg C  
**Freezing/Melting Point:** 1083 deg C  
** Decomposition Temperature:** Not available.  
**Solubility:** Insoluble in water.  
**Specific Gravity/Density:** 8.92  
**Molecular Formula:** Cu  
**Molecular Weight:** 63.54

### Section 10 - Stability and Reactivity

**Chemical Stability:** Stable.  
**Conditions to Avoid:** Dust generation, moisture, exposure to air.  
**Incompatibilities with Other Materials:** None reported.  
**Hazardous Decomposition Products:** Copper fumes.  
**Hazardous Polymerization:** Has not been reported.

### Section 11 - Toxicological Information

**RTECS#:**  
**CAS# 7440-50-8:** GL5325000; GL7440000; GL7590000  
**LD50/LC50:**  
Not available.  
**Carcinogenicity:**

https://fscimage.fishersci.com/msds/91832.htm  
2/2/2005
CAS# 7440-50-8: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No data available.
**Teratogenicity:** Experimental studies show teratogenic effects in laboratory animals.
**Reproductive Effects:** No data available.
**Neurotoxicity:** No data available.
**Mutagenicity:** No data available.
**Other Studies:** Experimental studies show tumorigenic effects in laboratory animals.

### Section 12 - Ecological Information

No information available.

### Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.
**RCRA U-Series:** None listed.

### Section 14 - Transport Information

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<thead>
<tr>
<th></th>
<th>US DOT</th>
<th>Canada TDG</th>
</tr>
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<tbody>
<tr>
<td><strong>Shipping Name:</strong></td>
<td>Not regulated as a hazardous material</td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Hazard Class:</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>UN Number:</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Packing Group:</strong></td>
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</table>

### Section 15 - Regulatory Information

**US FEDERAL**

**TSCA**
CAS# 7440-50-8 is listed on the TSCA inventory.

**Health & Safety Reporting List**
None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules**
None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b**
None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule**
None of the chemicals in this material have a SNUR under TSCA.

**CERCLA Hazardous Substances and corresponding RQs**
CAS# 7440-50-8: 5000 lb final RQ (no reporting of releases of this hazardous substance is required).

**SARA Section 302 Extremely Hazardous Substances**
None of the chemicals in this product have a TPQ.
SARA Codes
   CAS # 7440-50-8: acute, chronic, flammable.
Section 313
   This material contains COPPER (CAS# 7440-50-8, 100%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
Clean Air Act:
   This material does not contain any hazardous air pollutants.
   This material does not contain any Class 1 Ozone depletors.
   This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
   None of the chemicals in this product are listed as Hazardous Substances under the CWA.
   CAS# 7440-50-8 is listed as a Priority Pollutant under the Clean Water Act. CAS# 7440-50-8 is listed as a Toxic Pollutant under the Clean Water Act.
OSHA:
   None of the chemicals in this product are considered highly hazardous by OSHA.
STATE
   CAS# 7440-50-8 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols:
   Not available.
Risk Phrases:

Safety Phrases:

WGK (Water Danger/Protection)
   CAS# 7440-50-8: 0
Canada - DSL/NDSL
   CAS# 7440-50-8 is listed on Canada's DSL List.
Canada - WHMIS
   WHMIS: Not available.
Canadian Ingredient Disclosure List
   CAS# 7440-50-8 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 5/02/2001
Revision #2 Date: 12/03/2002

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.