Material Safety Data Sheet  
Copper Shot, 1-10 mm, 99.9%

ACC# 00470

Section 1 - Chemical Product and Company Identification

**MSDS Name:** Copper Shot, 1-10 mm, 99.9%  
**Catalog Numbers:** AC207690000, AC207691000, AC207695000  
**Synonyms:**  
**Company Identification:**  
Acros Organics N.V.  
One Reagent Lane  
Fair Lawn, NJ 07410  
**For information in North America, call:** 800-ACROS-01  
**For emergencies in the US, call CHEMTREC:** 800-424-9300

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 Shot</td>
<td>100</td>
<td>231-159-6</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

Appearance: red solid.  
**Warning!** May cause eye, skin, and respiratory tract irritation. Inhalation of fumes may cause metal-fume fever.  
**Target Organs:** Kidneys, liver.

**Potential Health Effects**

**Eye:** Dust may cause mechanical irritation. Causes eye irritation.  
**Skin:** May cause 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.

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: If victim is conscious and alert, give 2-4 cupfuls of milk or water. 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. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Flash Point: Not available.

Autoignition Temperature: Not available.

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: Wash thoroughly after handling. Use only in a well-ventilated area. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. 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>
<tbody>
<tr>
<td>Copper Shot</td>
<td>0.2 mg/m^3 TWA (fume); 1 mg/m^3 TWA (dust and mist)</td>
<td>1 mg/m^3 TWA (dust and mist) 100 mg/m^3 IDLH</td>
<td>0.1 mg/m^3 TWA (fume); 1 mg/m^3 TWA (dust and mist)</td>
</tr>
</tbody>
</table>

http://fscimage.fishersci.com/msds/00470.htm
OSHA Vacated PELs: Copper Shot: 0.1 mg/m3 TWA (dust, fume, 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 protective 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. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

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### Section 9 - Physical and Chemical Properties

**Physical State:** Solid

**Appearance:** red

**Odor:** odorless

**pH:** Not available.

**Vapor Pressure:** 1 mm Hg @1628°C

**Vapor Density:** Not available.

**Evaporation Rate:** Not applicable.

**Viscosity:** Not available.

**Boiling Point:** 2595 deg C @ 760.00mmHg

**Freezing/Melting Point:** 1083 deg C

**Decomposition Temperature:** Not available.

**Solubility:** insoluble

**Specific Gravity/Density:** 8.9200g/cm3

**Molecular Formula:** Cu

**Molecular Weight:** 63.54

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### Section 10 - Stability and Reactivity

**Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions. Exposure to moist air results in the formation of a green base carbonate coating.

**Conditions to Avoid:** Dust generation, moisture, exposure to air.

**Incompatibilities with Other Materials:** Liquid copper explodes on contact with water. Reacts violently with ammonium nitrate, bromates, iodates, chlorates, ethylene oxide, hydrazoic acid, potassium oxide, dimethyl sulfoxide + trichloroacetic acid, hydrogen peroxide, sodium peroxide, sulfuric acid, hydrogen sulfide + air, and lead azide. Ignites on contact with chlorine, fluorine (above 121°C), chlorine trifluoride, and hydrazinium nitrate (above 70°C). Incompatible with 1-bromo-2-propyne, potassium dioxide, and acetylenic compounds.

**Hazardous Decomposition Products:** Copper fumes.

**Hazardous Polymerization:** Has not been reported.

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### Section 11 - Toxicological Information
RTECS#:  
CAS# 7440-50-8: GL5325000; GL7440000; GL7590000
LD50/LC50:  
Not available.

Carcinogenicity:  
CAS# 7440-50-8: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No data available.
Teratogenicity: No data available.
Reproductive Effects: No data available.
Mutagenicity: No data available.
Neurotoxicity: No data available.
Other Studies:

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

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

SARA Section 302 Extremely Hazardous Substances
None of the chemicals in this product have a TPQ.

SARA Codes
CAS # 7440-50-8: immediate, delayed, fire.

Section 313
This material contains Copper Shot (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 depleters.
This material does not contain any Class 2 Ozone depleters.

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:
S 24/25 Avoid contact with skin and eyes.

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.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List
CAS# 7440-50-8 is listed on the Canadian Ingredient Disclosure List.
Section 16 - Additional Information

**MSDS Creation Date:** 1/20/1998  
**Revision #4 Date:** 11/20/2008

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.