Material Safety Data Sheet
Copper (II) Acetate, Anhydrous

ACC# 98306

Section 1 - Chemical Product and Company Identification

**MSDS Name:** Copper (II) Acetate, Anhydrous  
**Catalog Numbers:** AC405370000, AC405370500  
**Synonyms:** Cupric Acetate; Cupric Diacetate; Crystals of Venus.  
**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>142-71-2</td>
<td>Cupric acetate</td>
<td>ca.100</td>
<td>205-553-3</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

Appearance: dark green powder.  
**Caution!** May cause eye, skin, and respiratory tract irritation. May be harmful if swallowed. May cause liver and kidney damage. May cause adverse reproductive effects based upon animal studies.  
**Target Organs:** Kidneys, liver.

**Potential Health Effects**  
**Eye:** May cause eye irritation.  
**Skin:** May cause skin irritation. Cupric Acetate may cause a skin allergy. If allergy develops, very low future exposure can cause itching and a skin rash.  
**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause liver and kidney damage. May be harmful if swallowed.  
**Inhalation:** May cause respiratory tract irritation.  
**Chronic:** May cause reproductive and fetal effects.

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. Wash clothing before reuse.

**Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

**Inhalation:** Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

**Notes to Physician:** Treat symptomatically and supportively.

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### 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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Non-combustible, substance itself does not burn but may decompose upon heating to produce irritating, corrosive and/or toxic fumes.

**Extinguishing Media:** Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 0

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### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

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### Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

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### Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash
facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

**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>Cupric acetate</td>
<td>none listed</td>
<td>1 mg/m³ TWA (dust and mist, as Cu, except copper fume) (listed under Copper compounds, n.o.s.).100 mg/m³ IDLH (dust and mist, as Cu) (listed under Copper compounds, n.o.s.).</td>
<td>none listed</td>
</tr>
</tbody>
</table>

**OSHA Vacated PELs:** Cupric acetate: No OSHA Vacated PELs are listed for this chemical.

**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 prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

**Section 9 - Physical and Chemical Properties**

**Physical State:** Powder

**Appearance:** dark green

**Odor:** None reported.

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 240 deg C

**Freezing/Melting Point:** 115 deg C

**Decomposition Temperature:** Not available.

**Solubility:** Slightly soluble in water.

**Specific Gravity/Density:** Not available.

**Molecular Formula:** C4H6O4Cu

**Molecular Weight:** 181.5856

**Section 10 - Stability and Reactivity**

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Incompatible materials, dust generation, excess heat.

**Incompatibilities with Other Materials:** Strong acids, moisture.

**Hazardous Decomposition Products:** Carbon monoxide, carbon monoxide, carbon dioxide, oxides of copper.

**Hazardous Polymerization:** Has not been reported.
Section 11 - Toxicological Information

RTECS#: 
CAS# 142-71-2: AG3480000  
LD50/LC50: 
CAS# 142-71-2:  
   Oral, mouse: LD50 = 196 mg/kg;  
   Oral, rat: LD50 = 501 mg/kg;

Carcinogenicity: 
CAS# 142-71-2: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found  
Teratogenicity: No information found  
Reproductive Effects: Adverse reproductive effects have occurred in experimental animals.  
Mutagenicity: No information found  
Neurotoxicity: No information found  
Other Studies: 

Section 12 - Ecological Information

Ecotoxicity: Algae: Green algae: EC50 = 85 ug/L; 14 days; Cell volume bioassay  
Fish: Fathead Minnow: LC50 = .39 mg/L; 96 Hr.; Static bioassay  
No data available.

Environmental: Several processes determine the fate of copper in the aquatic environ: complex formation, esp with humic substances; sorption to hydrous metal oxides, clays, & organic materials; & bioaccumulation. The formation of complexes with organic ligands modifies the solubility & precipitation behavior of copper such that solid copper species probably do not precipitate under normal circumstances. Furthermore, complexed copper is more easily adsorbed by clay & other surfaces than the free (hydrated) cation. Copper has a strong affinity for hydrous iron and manganese oxides, clay.

Physical: No information found.

Other: Bioconcentration factor= 17,700-22,600/28 days in soft tissue of Corbicula fluminea (asiatic clam).Bioconcentraion factor= 471/7 days (whole body) in Daphnia magna (cladoceran).Bioconcentration factor converted from dry wt to wet wt basis. Bioconcentration factor= 1.0/660 days in muscle of Lepomis macrochirus (bluegill).

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
Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 142-71-2 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# 142-71-2: 100 lb final RQ; 45.4 kg final RQ

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

SARA Codes
CAS # 142-71-2: immediate, delayed.

Section 313
This material contains Cupric acetate (listed as Copper compounds, n.o.s.), ca.100%, (CAS# 142-71-2) 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:
CAS# 142-71-2 is listed as a Hazardous Substance under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA. CAS# 142-71-2 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# 142-71-2 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, 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:
   XN
Risk Phrases:
   R 22 Harmful if swallowed.

Safety Phrases:
   S 24/25 Avoid contact with skin and eyes.
   S 37 Wear suitable gloves.
   S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
   S 28A After contact with skin, wash immediately with plenty of water.

WGK (Water Danger/Protection)
   CAS# 142-71-2: 2

Canada - DSL/NDSL
   CAS# 142-71-2 is listed on Canada's DSL List.

Canada - WHMIS
   This product has a WHMIS classification of D2A, D1B.
   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# 142-71-2 (listed as Copper compounds, n.o.s.) is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 4/05/1997
Revision #10 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.