Material Safety Data Sheet
Copper(II) tartrate hydrate

ACC# 02653

Section 1 - Chemical Product and Company Identification

MSDS Name: Copper(II) tartrate hydrate
Catalog Numbers: AC347950000, AC347950050, AC347950250
Synonyms: Cupric tartrate hydrate; Butanedioic acid, 2,3-dihydroxy-(2R,3R)-, copper(2+) salt (1:1) hydrate.
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>17263-56-8</td>
<td>Copper(II) tartrate hydrate</td>
<td>96</td>
<td>unlisted</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: green crystalline powder.
Warning! Causes eye, skin, and respiratory tract irritation.
Target Organs: Respiratory system, eyes, skin.

Potential Health Effects
Eye: Causes eye irritation.
Skin: Causes skin irritation. May be harmful if absorbed through the skin.
Ingestion: May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated. May be harmful if swallowed.
Inhalation: Causes respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. May be harmful if inhaled.
Chronic: May cause liver and kidney damage. Repeated contact may cause thickening of the skin. (New Jersey Fact Sheet)

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. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.
Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.
Ingestion: Get medical aid. Wash mouth out with water. 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 inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Notes to Physician: Treat symptomatically and supportively.
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.

**Extinguishing Media:** Use extinguishing media most appropriate for the surrounding fire.

**Flash Point:** Not applicable.

**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:** 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.

Section 7 - Handling and Storage

**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. Avoid breathing dust.

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

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>Copper(II) tartrate hydrate</td>
<td>none listed</td>
<td>1 mg/m³ TWA (as Cu except Copper fume) (listed under Copper compounds, n.o.s.).</td>
<td>none listed</td>
</tr>
<tr>
<td>Copper(II) tartrate anhydrous</td>
<td>none listed</td>
<td>1 mg/m³ TWA (as Cu except Copper fume) (listed under Copper compounds, n.o.s.).</td>
<td>none listed</td>
</tr>
<tr>
<td>Copper(II) tartrate trihydrate</td>
<td>none listed</td>
<td>1 mg/m³ TWA (as Cu except Copper fume) (listed under Copper compounds, n.o.s.).</td>
<td>none listed</td>
</tr>
</tbody>
</table>

**OSHA Vacated PELs:** Copper(II) tartrate hydrate: No OSHA Vacated PELs are listed for this chemical. Copper(II) tartrate anhydrous: No OSHA Vacated PELs are listed for this chemical. Copper(II) tartrate trihydrate: 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. 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.

### Section 9 - Physical and Chemical Properties

**Physical State:** Crystalline powder  
**Appearance:** blue - green  
**Odor:** odorless  
**pH:** Not available.  
**Vapor Pressure:** Not available.  
**Vapor Density:** Not available.  
**Evaporation Rate:** Not available.  
**Viscosity:** Not available.  
**Boiling Point:** Not available.  
**Freezing/Melting Point:** decomposes  
**Decomposition Temperature:** Not available.  
**Solubility:** Slightly soluble.  
**Specific Gravity/Density:** Not available.  
**Molecular Formula:** C₄H₄CuO₆.xH₂O  
**Molecular Weight:** 211.62

### Section 10 - Stability and Reactivity

**Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.  
**Conditions to Avoid:** Dust generation, excess heat.  
**Incompatibilities with Other Materials:** Strong oxidizing agents.  
**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide, oxides of copper.  
**Hazardous Polymerization:** Will not occur.

### Section 11 - Toxicological Information

**RTECS#:**  
**CAS#** 17263-56-8 unlisted.  
**CAS#** 815-82-7 unlisted.  
**CAS#** 5893-71-0 unlisted.  
**LD50/LC50:** Not available.  
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**Carcinogenicity:**  
**CAS#** 17263-56-8: Not listed by ACGIH, IARC, NTP, or CA Prop 65.  
**CAS#** 815-82-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.  
**CAS#** 5893-71-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.  
**Epidemiology:** No information found  
**Teratogenicity:** No information found  
**Reproductive Effects:** No information found  
**Mutagenicity:** No information found  
**Neurotoxicity:** No information found  
**Other Studies:**

### Section 12 - Ecological Information
Ecotoxicity: No data available. No information available.
Environmental: No information available.
Physical: No information available.
Other: Copper has been shown to be accumulated by shellfish. (OHM/TADS)

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</td>
<td>Not Regulated</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>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 17263-56-8 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3(u)(2)).
CAS# 815-82-7 is listed on the TSCA inventory.
CAS# 5893-71-0 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3(u)(2)).

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# 815-82-7: 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.

Section 313
This material contains Copper(II) tartrate hydrate (listed as Copper compounds, n.o.s.), 96%, (CAS# 17263-56-8) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
This material contains Copper(II) tartrate anhydrous (listed as Copper compounds, n.o.s.), -%, (CAS# 815-82-7) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
This material contains Copper(II) tartrate trihydrate (listed as Copper compounds, n.o.s.), -%, (CAS# 5893-71-0) 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# 815-82-7 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# 17263-56-8 is listed as a Toxic Pollutant under the Clean Water Act. CAS# 815-82-7 is listed as a Toxic Pollutant under the Clean Water Act. CAS# 5893-71-0 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# 17263-56-8 can be found on the following state right to know lists: California, (listed as Copper compounds, n.o.s.), Pennsylvania, (listed as Copper compounds, n.o.s.).
CAS# 815-82-7 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Massachusetts.
CAS# 5893-71-0 can be found on the following state right to know lists: California, (listed as Copper compounds, n.o.s.), Pennsylvania, (listed as Copper compounds, n.o.s.).

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# 17263-56-8: No information available.
CAS# 815-82-7: No information available.
CAS# 5893-71-0: No information available.

Canada - DSL/NDSL
CAS# 815-82-7 is listed on Canada's DSL List.

Canada - WHMIS
This product has a WHMIS classification of D2B.
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# 17263-56-8 (listed as Copper compounds, n.o.s.) is listed on the Canadian Ingredient Disclosure List.
CAS# 815-82-7 (listed as Copper compounds, n.o.s.) is listed on the Canadian Ingredient Disclosure List.
CAS# 5893-71-0 (listed as Copper compounds, n.o.s.) is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 4/26/2000
Revision #2 Date: 4/26/2005

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, however arising, even if Fisher has been advised of the possibility of such damages.