### I. PRODUCT IDENTIFICATION

**Manufacturer's Name:** Tennessee Chemical Company  
3400 Peachtree Rd. NE, Suite 401  
Atlanta, Georgia 30326

**Regular telephone no.:** 404-233-6811  
**Emergency telephone no.:** Chemtrec 800-424-93

**Trade Name:** Basic Copper Carbonate / Light and Dense Grades

**Synonyms:** Copper Carbonate

**DOT:** Copper Carbonate

**II. HAZARDOUS INGREDIENTS**

<table>
<thead>
<tr>
<th>Material or Component</th>
<th>CAS No.</th>
<th>%</th>
<th>Hazard Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Copper Carbonate * Cu(OH)₂·CuCO₃</td>
<td>12069-69-1</td>
<td>100</td>
<td>Air contaminant as dust or mist TWA 8 hr. = 1 mg/M³ as copper.</td>
</tr>
<tr>
<td>Light Grade, Bulk Density 30 - 35 lb/ft³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dense Grade, Bulk Density 70 - 75 lb/ft³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Copper as metallic 55%) **</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Basic copper carbonate is not a hazardous material nor does it contain hazardous ingredients. **Reportable under SARA Title III Sec. 313 and 40 CFR Part 372**

### III. PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point, 760 MM HG</td>
<td>N.A. *</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Decomposes above 200° C.</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>N.A.</td>
</tr>
<tr>
<td>Specific Gravity (H₂O = 1)</td>
<td>4.0</td>
</tr>
<tr>
<td>Vapor Density (AIR = 1)</td>
<td>N.A.</td>
</tr>
<tr>
<td>Solubility in Water (%) by wt</td>
<td>Insoluble. Cold water ≤ 0.0002 g/100 ml, Water decomposes</td>
</tr>
<tr>
<td>% Volatiles by Vol.</td>
<td>N.A.</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>Dark green powder</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>N.A.</td>
</tr>
</tbody>
</table>

### IV. FIRE AND EXPLOSION DATA

- **Flash Point (Test Method):** Not flammable
- **Extinguishing Media:** Extinguishing agent for the material that is burning.
- **Special Fire Fighting Procedures:** None known
- **Unusual Fire and Explosion Hazard:** None known

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1. See references 1 and 2  
2. See instructions and references 1 to 8.

* N.A. - Not Applicable  
N.D. - Not Determined
## HEALTH HAZARD INFORMATION

<table>
<thead>
<tr>
<th>HEALTH HAZARD DATA</th>
<th>M A Z A R D C L A S S I F I C A T I O N</th>
<th>BASIS FOR CLASSIFICATION</th>
<th>SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUTES OF EXPOSURE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INHALATION</td>
<td>Not determined</td>
<td>TLV - TWA 3 hrs = 1 mg/M³</td>
<td>29 CFR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1910.120</td>
</tr>
<tr>
<td>SKIN CONTACT</td>
<td>Not irritating to skin (FHSLA)</td>
<td>Skin irritation Index (rabbits) = zero</td>
<td>Laboratory test on product</td>
</tr>
<tr>
<td>SKIN ABSORPTION</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EYE CONTACT</td>
<td>Mild irritant.</td>
<td>Eye irritation score (rabbits) = 6.0; 3.7; and 9 at 24, 48 and 72 hours</td>
<td>Laboratory test on product</td>
</tr>
<tr>
<td>INGESTION</td>
<td>Moderate toxicity</td>
<td>Oral LD₅₀ (rats) = 0.625 to 1.250 g/kg body weight</td>
<td>Laboratory test on product</td>
</tr>
</tbody>
</table>

### EFFECTS OF OVEREXPOSURE

**ACUTE OVEREXPOSURE**

Copper ingestion is seldom fatal. Ingestion may cause vomiting as copper is an emetic.

**CHRONIC OVEREXPOSURE**

None known

### EMERGENCY AND FIRST AID PROCEDURES

**EYES:** Wash eyes with large amounts of water for at least 15 minutes. See a physician.

**SKIN:** No special procedures.

**INHALATION:** Remove worker from exposure and seek medical aid.

**INGESTION:** Drink large quantity of water or milk. Seek medical aid.

### NOTES TO PHYSICIAN
VI REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY

None known

INCOMPATIBILITY

Mixing with acids will solubilize product to form the respective copper acid salts which are water soluble.

HAZARDOUS DECOMPOSITION PRODUCTS

None known. High temperature decomposes product releasing CO₂, producing cupric oxide.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION

None known

VII DISPOSAL, SPILL OR LEAK PROCEDURES

AQUATIC TOXICITY (e.g. 96 HR. TLM):

Not determined

WASTE DISPOSAL METHOD

Remove waste to an approved chemical landfill for disposal. Product is not listed in 40 CFR 261.33 when discarded.

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

Contain spill and if dry sweep up product and dispose in an approved landfill. If wet remove this insoluble product and dispose in an approved landfill.

NEUTRALIZING CHEMICALS

Product is neutral and water insoluble. If it has been solubilized by an acid, use lime or soda ash to neutralize into insoluble product.

VIII SPECIAL PROTECTION INFORMATION

VENTILATION REQUIREMENTS

OSHA regulation 29 CFR 1910.1000 lists the 8 hour TWA for any copper dust as 1 mg/m³ as copper.

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY (SPECIFY IN DETAIL)

An appropriate dust mask must be worn if TWA exceeds allowable limit.

EYE

Chemical goggles should be worn when handling product and eye contact is possible.

GLOVES

Not known to be necessary. However, wearing of chemical gloves is a good suggested practice when handling chemicals.

OTHER CLOTHING AND EQUIPMENT

No other clothing or equipment is known to be necessary.
IX SPECIAL PRECAUTIONS

PRECAUTIONARY STATEMENTS

This product may be toxic to fish. Keep out of lakes, streams, or ponds.

Keep product out of reach of children. Harmful if swallowed.

OTHER HANDLING AND STORAGE REQUIREMENTS

Store in a dry place.

ADDITIONAL REGULATORY CONCERNS

DETERAL:

FDA

USDA

CPSC

TSCA: IS THIS PRODUCT, OR ALL ITS INGREDIENTS, BEING CERTIFIED FOR INCLUSION ON THE TOXIC SUBSTANCES CONTROL ACT INVENTORY OF CHEMICAL SUBSTANCES? Yes

OTHER: Light copper carbonate is registered with EPA as a pesticide.

STATE:

OSHA: Product is a hazardous material as defined by 29 CFR 1910.1200 because its dust and mist is regulated as an air contaminant.

Product is not listed by the National Toxicology Program, the International Agency for Research on Cancer, nor the Registry of Toxic Effects of Chemical Substances (1981-82) as a carcinogen or a potential carcinogen.

PREPARED BY Arthur F. Gohlke, Ph. D.

TITLE: Technical Service Specialist

COMPANY: Tennessee Chemical Company

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Atlanta, Georgia 30326

19-89