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**MATERIAL SAFETY DATA SHEET**

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Common Name                    **BASIC COPPER SULFATE**

Manufacturer                    Old Bridge Chemicals, Inc.  
   P.O. Box 194  
   Old Bridge, New Jersey 08857

Telephone                        (732) 727-2225

Emergency Telephone        1(800) 275-3924

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200).

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**SECTION I. MATERIAL IDENTIFICATION**

Common Name                    Basic Copper Sulfate

Synonyms                        Tri-Basic Copper Sulfate, Copper Sulfate Basic, Fixed Copper

Molecular Formula             $\text{CuSO}_4 \cdot 3\text{Cu}(\text{OH})_2 \cdot \text{H}_2\text{O}$

EPA Reg. Number              46923-2

CAS Number                      1344-73-6

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**SECTION II. INGREDIENTS**

Elemental Copper              (CAS No. 7758-98-7) 53.0%

Inserts                            (CAS No. N/A) 47.0%

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**SECTION III. PHYSICAL DATA**

Physical State                    Fine light bluish-green powder

Boiling Point                    N/A

Melting Point                    572° F (decomposes)

Specific Gravity                 0.800 - 0.900

Solubility in H<sub>2</sub>O                Insoluble (soluble in acids)

Appearance                      Bluish-green fine powder

Odor                                Odorless

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**SECTION IV. FIRE AND EXPLOSION DATA**

|                                    |   |
|------------------------------------|---|
| Flash Point                        | Not applicable  |
| Flammable Limits                   | Not flammable. If heated above 570° F it can decompose to emit toxic fumes of oxide and sulfur.   |
| Extinguishing Media                | Basic Copper Sulfate does not burn nor will it support combustion. Use dry chemical, Carbon Dioxide, foam or water mist or fog. If stored with other combustible products use water, CO <sub>2</sub> or dry chemical. |
| Special Fire Fighting Instructions | If dry heated above 300° C, SO <sub>2</sub> is evolved. If water is used, dike fire control water for later disposal. Keep away from streams or lakes.  |
| Fire and Explosion Hazards         | None  |

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**SECTION V. REACTIVITY DATA**

|                                  |   |
|----------------------------------|---|
| Stability                        | Stable at normal temperatures   |
| Conditions to Avoid              | May burn, but will not ignite.  |
| Incompatibility                  | Mixing with acid will solubilize product producing water soluble products.                                |
| Hazardous Decomposition Products | None at normal production temperatures and pressures. If dry heated above 300° C toxic sulfur may evolve. |
| Polymerization                   | Will not occur.   |

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**SECTION VI. HEALTH AND HAZARD INFORMATION**

|                 |  |
|-----------------|--|
| Swallowing      | Ingestion can cause diarrhea, vomiting and stomach pain.<br>LD50 (rats) = 1000 mg/kg.  |
| Skin            | Certain individuals may be sensitive to copper   |
| Eyes            | Severe eye irritant. Causes substantial, but temporary eye damage. May be corrosive to eyes.<br><br>Eye irritation score:<br>(Unwashed) 24 hours = 14.33<br>(Unwashed) 48 hours = 13.33<br>(Unwashed) 72 hours = 3.33<br>(Unwashed) 7 days = 0 |
| Inhalation      | Inhalation of dust may cause irritation to the upper respiration tract.  |
| Carcinogenicity | None as per NTP, OSHA, and IARC.   |

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**SECTION VII. FIRST AID PROCEDURES**

|                 |   |
|-----------------|---|
| Swallowing      | Give large amounts of milk or water. Induce vomiting. Do not give anything by mouth or induce vomiting if the person is unconscious. Call Poison Control Center or a physician. |
| Skin            | Wash thoroughly with soap and water. Remove and wash contaminated clothing before reuse. Get medical attention if necessary.  |
| Eyes            | Immediately flush eyes with plenty of water for 15 minutes. Hold eyelids apart during irrigation. Call a physician.   |
| Inhalation      | Remove person to fresh air and call a physician.  |
| Carcinogenicity | None  |

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**SECTION VIII. HANDLING PRECAUTIONS**

|                               |   |
|-------------------------------|---|
| Personal Protective Equipment | Chemical safety goggles. Gloves and protective clothing should be worn to prevent prolonged skin contact. |
| Respiratory Protection        | Wear an approved respirator for dusts or mists.   |

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**SECTION IX. ENVIRONMENTAL AND DISPOSAL INFORMATION**

|                       |  |
|-----------------------|--|
| Aquatic Toxicity      | Daphnia LC50 at = In excess of 320 ug/liter.   |
| Spills and Leaks      | Comply with Federal, State and local regulations on reporting spills. Do not wash away the powder. Recover dry if possible. If product is in a confined solution, pump it into a chemical waste container. |
| Waste Disposal        | Do not reuse container. Dispose of powder or solutions and container in accordance with Federal, State and local regulations.  |
| Environmental Effects | Toxic to fish and plants.  |

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**SECTION X. SPECIAL PRECAUTIONS**

|                   |   |
|-------------------|---|
| Storage           | Store in a dry place.                                       |
| Other Precautions | None other than those stated in the MSDS or on the package. |

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**SECTION XI. REGULATORY INFORMATION**

NOTICE: The information herein is presented in good faith and believed to be accurate. However, no warranty, expressed or implied, is given. Regulatory requirements are subject to change and may differ from one location to another. It is the buyer's responsibility to ensure that its activities comply with Federal, State and local laws.

U.S. REGULATIONS: SARA 313 Information. This product contain the following substance subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372: **COPPER COMPOUND** 53.0%.

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following category: **AN IMMEDIATE HEALTH HAZARD.**

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## **SECTION XII. SHIPPING INFORMATION**

DOT Shipping Name: Non-regulated

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## **SECTION XIII. MSDS PREPARATION INFORMATION**

Prepared by Joel L. Goldschmidt, Vice President

Updated May 18, 1999

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