

# COPPER NITRATE SOLUTION

## Description

Copper Nitrate Solution is a blue transparent liquid that is produced using the highest quality copper. It can be used to correct copper deficiencies in soils and it is also compatible with many liquid fertilizers, micronutrients, pesticides, and water. It mixes easily with calcium chloride, calcium nitrate, ammonium nitrate, ferric nitrate, magnesium nitrate, manganese nitrate and zinc nitrate.

## Uses

- As a fertilizer it is involved in building and converting amino acids to proteins and functions in chlorophyll formulation
- Used in electroplating applications
- In the manufacture of enamels, cleaners, and dyes

## Handling & Storage

Always conduct a jar test with new tank mixes to verify compatibility. It is recommended the product be stored above 32°F at all times.

Store in a cool, dry place out of direct sunlight. Do not use aluminum, copper or mild steel for storage.

Absorbent combustible materials such as sawdust and other organic materials should never be used to absorb a copper nitrate solution spill. Use inert absorbent material for this purpose. Water may be used, but note "Environmental Considerations" below. For further information, see the Copper Nitrate Solution Safety Data Sheet.

## Environmental Considerations

Copper nitrate solution contains copper nitrate, a chemical recognized by the U.S. Environmental Protection Agency (EPA) as a hazardous substance subject to reporting to the National Response Center, as well as state and local authorities.

## Shipping

Copper Nitrate Solution is hazardous and classified as a corrosive liquid. The US Department of Transportation proper shipping name is: UN3264, Copper Nitrate Solution, 5.1, PG II. The Emergency Response Guidebook Number is 154.



## Chemical & Physical Properties

|                                  |                                   |
|----------------------------------|-----------------------------------|
| Chemical Formula                 | Cu(NO <sub>3</sub> ) <sub>2</sub> |
| CAS Number                       | 3521-23-8                         |
| Specific Gravity @ 64°F (17.8°C) | 1.52                              |
| pH                               | < 0.5                             |
| Salt-Out Temp                    | < 15°F (-9.4°C)                   |
| Color                            | Clear blue liquid                 |
| Odor                             | Acrid odor                        |
| Weight per Gallon                | 12.65 lbs/gal (1.52 kg/L)         |
| Gallons per Ton                  | 158.1 (0.60 L/kg)                 |

## Typical Analysis

|   |         |
|---|---------|
| Nitrogen (N)<br>6.0% Nitrate Nitrogen               | 6.00%   |
| Copper (Cu)   | 14.00%  |
| Copper Nitrate (Cu(NO <sub>3</sub> ) <sub>2</sub> ) | 41.30%  |
| Insoluble   | < 0.01% |
| Chloride (Cl)                                       | < 0.01% |

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