



Product Information Sheet



C375 Cupric Sulfate Pentahydrate

Synonym: Copper(II) Sulfate Pentahydrate
CAS: 7758-99-8
Formula: $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$
Molecular Wt: 249.68

Properties

Form: Powder
Appearance: Blue, Crystalline
Application: Plant Micronutrient, Fungicide, Herbicide, Algicide
Solubility: Soluble in Water
Storage Temp: Room Temperature
Storage Temp of Stock Solution: Room Temperature
Other Notes: Plant Tissue Culture Tested

Application Notes

Used as a micronutrient in plant tissue culture.

Can also be used as a fungicide, although some fungi are capable of persisting through elevated levels of copper ions (Johnson, 1935). As an herbicide, it can be used to control the growth of aquatic plants, as well as algae (Newbold, 1975; Robson et al, 1976). It also inhibits the growth of bacteria, such as *Escherichia coli* (Tetaz & Luke, 1983).

It is used in Fehling's Solution and Benedict's Solution to test for reducing sugars. Reducing sugars will cause the blue color of the copper in solution to change to an insoluble red solution of copper(I) oxide. Can also be used in the Biuret reagent to test for proteins.

References

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