

SPECIFICATION

Product Name: Copper Sulphate Pentahydrate USP Grade
Chemical Formula: $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$
CAS Number: 7758-99-8
Molecular Weight: 249.68 g/mol
Appearance: Blue crystalline powder
Odor: Odorless

Chemical Composition

Parameter	Unit	Typical Value	Specification (Min./Max.)
Identification (A)	-	Complies	(A) General sulphate: A 100-mg/ml solution meets the requirements.
(B)	-	Complies	(B) General copper: A 100-mg/ml solution meets the requirements.
Sodium	%	<0.02%	NMT 0.02%
Potassium	%	<0.01%	NMT 0.01%
Calcium	%	<0.005%	NMT 0.005%
Iron	%	<0.003%	NMT 0.003%
Nickel	%	<0.005%	NMT 0.005%
Loss on drying (Dry it at 250° to constant weight)	%	33.8%	33.0% - 36.5%
Assay	%	99.2%	Contains NLT 98.5% and NMT 100.5% of cupric sulphate

Physical Properties

- Solubility: Soluble in water. Insoluble in ethanol. Soluble in glycerol.

Shelf Life & Storage

- Shelf Life: 3 years from date of manufacture under recommended storage.

- Storage Conditions: Store in a cool, dry, and well-ventilated place. Keep the container tightly closed to protect from moisture and contamination. Store away from incompatible materials, excessive heat, and direct sunlight in the original, properly labeled container.

Applications

- Use: Widely used as a source of copper in pharmaceutical and nutraceutical formulations. It is also used in laboratory reagents, analytical applications, and as a trace mineral ingredient in dietary supplements to support normal enzyme function, red blood cell formation, and overall metabolic processes.

- Dosage: Depends on the intended formulation, copper content, and clinical or nutritional requirements. It should be used according to product formulation specifications, applicable regulatory standards, or as directed by a qualified healthcare professional. The appropriate dosage varies based on the product type, patient age, and intended use.

Packaging

- Standard Packing: 25 Kgs HDPE Drum or as per customer requirement.

- Labeling: Product name, batch number, net weight, manufacture date, expiry date, and manufacturer details.

* Specifications are based on the manufacturer's provided specifications.