

Copper Sulfate Pentahydrate

copper(II) sulfate pentahydrate | CAS 7758-99-8

Product identification

Product name	Copper Sulfate Pentahydrate
Chemical name	copper(II) sulfate pentahydrate
CAS number	7758-99-8
EC / List number	616-477-9
PubChem CID	24463
Molecular formula	CuSO ₄ ·5H ₂ O
Molecular weight	249.69 g/mol
InChIKey	JZCCFEFSEZPSOG-UHFFFAOYSA-L
Canonical / reference SMILES	O.O.O.O.O.[O-]S(=O)(=O)[O-].[Cu+2]
Material type	Analytical chemical / laboratory reagent

Material description

Copper Sulfate Pentahydrate is a hydrated inorganic copper salt supplied by Rexar as an analytical chemical for laboratory and technical applications. It is typically encountered as a blue crystalline solid and is readily soluble in water.

Intended use

For laboratory, analytical, chemical, quality-control and method-development applications. Not for human or animal consumption. Not intended for food, supplement, cosmetic, medical, diagnostic or therapeutic use.

Reference characteristics

Structural class	Hydrated inorganic copper(II) sulfate
Typical physical form	Blue crystalline granules or powder
Density	Approximately 2.29 g/cm ³
Thermal behaviour	Approximately 110 °C with decomposition / dehydration
Solubility	Soluble in water
Storage guidance	Keep tightly closed and dry. Protect from contamination and incompatible materials.

Analytical use and traceability

Lot-specific purity, assay, water content, impurities and analytical acceptance criteria must be taken from the applicable supplier documentation or certificate of analysis. They are not inferred by this datasheet.

Safety note

Current EU-aligned hazard information for copper sulfate pentahydrate includes Acute Tox. 4 (H302: harmful if swallowed), Eye Dam. 1 (H318: causes serious eye damage), Aquatic Acute 1 (H400) and Aquatic Chronic 1 (H410). Confirm the applicable grade/batch SDS before handling.

Identity verification note

Identity verified against PubChem CID 24463 and current ECHA substance information: CAS 7758-99-8, $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$, 249.69 g/mol, InChIKey JZCCFEFSEZPSOG-UHFFFAOYSA-L.

Document control

Document	Rexar Technical Compound Datasheet
Revision	10 September 2026
Status	Reference information; not a certificate of analysis

Disclaimer

This document is provided for chemical identification and laboratory reference purposes. It does not certify batch purity or replace lot-specific analytical documentation. Users remain responsible for suitability, regulatory status and safe handling.