

Identification

$\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$
M = 249,68 g/mol
CAS [7758-99-8]
EC number: 231-847-6
Taric code: 2833 25 00

Synonyms

Copper monosulfate pentahydrate, Copper vitriol pentahydrate

Applications

analytical chemistry, nitrogen determinations, in pharma industry.

Specifications

assay (iodometric).....	99,0 - 101,0 %	calcium (Ca).....	max 0,005 %
assay (iodometric, on dried sample).....	98,5 - 100,5 %	iron (Fe).....	max. 0,003 %
Identification sulfates.....	passes test	lead (Pb).....	max. 0,005 %
Identification copper.....	passes test	nickel (Ni).....	max. 0,005 %
appearance of solution.....	passes test	potassium (K).....	max. 0,01 %
chlorides (Cl).....	max. 100 ppm	sodium (Na).....	max. 0,02 %
		loss on drying (250 °C).....	35,0 - 36,5 %

Physical data

- Appearance: crystals, blue
- Spec. Density: 2,29 g/cm³
- Bulk density: ~ 900 - 1200 kg/m³
- Solub. in water: (20 °C): ~ 317 g/l
- pH(50 g/l H₂O, 20 °C) ~ 3,5 - 4,5

Safety - GHS

Signal Word: Warning

Hazard Statements:

- H302: Harmful if swallowed.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H410: Very toxic to aquatic life with long lasting effects.



Precautionary Statements:

- P280: Wear protective gloves / protective clothing / eye protection / face protection.
P273: Avoid release to the environment.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER or doctor / physician.
P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P501a: Dispose of contents / container in accordance with local / regional / national / international regulations.

Transport/storage

- ADR: 9 M7 III • UN 3077 • ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Copper(II) sulfate pentahydrate)
- IMDG: 9 III • UN 3077 • ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Copper(II) sulfate pentahydrate)
- IATA/ICAO: 9 III • UN 3077 • ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Copper(II) sulfate pentahydrate)
- PAX: 911
- CAO: 911