

Copper(II) nitrate trihydrate, EssentQ®

Identification

$\text{Cu}(\text{NO}_3)_2 \cdot 3\text{H}_2\text{O}$
M = 241,60 g/mol
CAS [10031-43-3]
EC number: 221-838-5
Taric code: 2834 29 40

Synonyms

Copper dinitrate trihydrate

Applications

analytical chemistry, in galvanotechnia, spraying reagent in thin layer chromatography, in porcelain industry (colouring agent).

Specifications

| | | | |
|----------------------------------|---------------|---|--------------|
| assay (iodometric)..... | 98 - 103 % | calcium (Ca)..... | max. 0,05 % |
| insoluble in water..... | max. 0,025 % | iron (Fe)..... | max. 0,01 % |
| pH (5 %, H ₂ O)..... | min. 2,8 | lead (Pb)..... | max. 0,005 % |
| chlorides (Cl)..... | max. 0,003 % | magnesium (Mg)..... | max. 0,01 % |
| sulfates (SO ₄)..... | max. 0,01 % | nickel (Ni)..... | max. 0,05 % |
| arsenic (As)..... | max. 0,0001 % | non precipitable with H ₂ S (as SO ₄)..... | max. 0,1 % |

Physical data

- Spec. Density: 2,32 g/cm³
- Bulk density: ~ 1050 kg/m³
- Solub. in water: (20 °C): soluble
- Melting point: ~ 114 °C
- pH(50 g/l H₂O, 20 °C) ~ 3 - 4

Safety - GHS

Signal Word: Danger

Hazard Statements:

- H272: May intensify fire; oxidiser.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.
H302: Harmful if swallowed.
H315: Causes skin irritation.
H319: Causes serious eye irritation.

**Precautionary Statements:**

- P221: Take any precaution to avoid mixing with combustibles.
P210: Keep away from heat / sparks / open flames / hot surfaces. - No smoking.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370+P378: In case of fire: Use ... for extinction.
P321: Specific treatment (see on this label).
P501a: Dispose of contents / container in accordance with local / regional / national / international regulations.

Transport/storage

- ADR: 5.1 O2 II • UN 1477 • NITRATES, INORGANIC, N.O.S.
- IMDG: 5.1 II • UN 1477 • NITRATES, INORGANIC, N.O.S.
- IATA/ICAO: 5.1 II • UN 1477 • NITRATES, INORGANIC, N.O.S.
- PAX: 508
- CAO: 511
- 10°C - 30°C