

Identification

H₂SO₄
 M = 98,08 g/mol
 CAS [7664-93-9]
 EC number: 231-639-5
 Taric code: 2807 00 00

Synonyms

Sulphuric acid

Applications

analytical chemistry, laboratory reagent, acidifying agent, synthesis of organic products, nitrogen determinations.

Specifications

assay (acidimetric).....	95,0 - 98,0 %	iron (Fe).....	max. 0,1 ppm
appearance.....	passes test	lead (Pb).....	max. 0,02 ppm
colour (Hazen).....	max. 10	lithium (Li).....	max. 0,01 ppm
density (20°/20°).....	1,834 - 1,837	magnesium (Mg).....	max. 0,05 ppm
chlorides (Cl).....	max. 0,00001 %	manganese (Mn).....	max. 0,01 ppm
nitrates (NO ₃).....	max. 0,00002 %	mercury (Hg).....	max. 0,005 ppm
nitrates and nitrites (as NO ₃).....	max. 0,2 %	molybdenum (Mo).....	max. 0,05 ppm
phosphates (as PO ₄).....	max. 0,00005 %	nickel (Ni).....	max. 0,02 ppm
aluminium (Al).....	max. 0,05 ppm	potassium (K).....	max. 0,1 ppm
ammonium (NH ₄).....	max. 0,0002 %	silver (Ag).....	max. 0,02 ppm
arsenic (As).....	max. 0,01 ppm	sodium (Na).....	max. 0,5 ppm
barium (Ba).....	max. 0,05 ppm	strontium (Sr).....	max. 0,02 ppm
beryllium (Be).....	max. 0,01 ppm	thallium (Tl).....	max. 0,05 ppm
bismuth (Bi).....	max. 0,1 ppm	titanium (Ti).....	max. 0,1 ppm
cadmium (Cd).....	max. 0,02 ppm	vanadium (V).....	max. 0,01 ppm
calcium (Ca).....	max. 0,2 ppm	zinc (Zn).....	max. 0,05 ppm
chromium (Cr).....	max. 0,05 ppm	zirconium (Zr).....	max. 0,1 ppm
cobalt (Co).....	max. 0,01 ppm	oxidisable substances.....	passes test
copper (Cu).....	max. 0,01 ppm	substances reducing KMnO ₄	passes test
germanium (Ge).....	max. 0,05 ppm	residue on ignition.....	max. 0,0005 %
heavy metals (as Pb).....	max. 1 ppm		

Physical data

- Density: 1,84 g/cm³
- Solub. in water: (20 °C): miscible
- Melting point: ~ -15 °C
- Boiling point: ~ 310 °C
- Vapour pressure: (20 °C) ~ 0,0001 hPa
- pH(49 g/l H₂O, 25 °C) 0,3
- Hygroscopic

Safety - GHS

Signal Word: Danger



Hazard Statements:

H314: Causes severe skin burns and eye damage.

Precautionary Statements:

- P260: Do not breathe dust / fume / gas / mist / vapours / spray.
- P303+P361+P353: IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P321: Specific treatment (see on this label).
- P405: Store locked up.
- P501a: Dispose of contents / container in accordance with local / regional / national / international regulations.

Toxicological data

- LD 50 (oral, rat): 2140 mg/kg
- MAK: 0,1 mg/m³
- WGK: 1
- Poison class CH (Swiss): 2

Transport/storage

- ADR: 8 C1 II • UN 1830 • SULPHURIC ACID
- IMDG: 8 II • UN 1830 • SULPHURIC ACID
- IATA/ICAO: 8 II • UN 1830 • SULPHURIC ACID
- PAX: 809
- CAO: 813
- Store between 15°C and 25°C