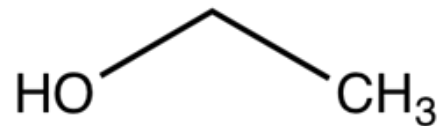


Identification

C_2H_5OH
 M = 46,07 g/mol
 CAS [64-17-5]
 EC number: 200-578-6
 Taric code: 2207 10 00


Synonyms

Ethyl alcohol, Methylcarbinol, Spirit, Spirit of wine

Applications

solvents, disinfectant, for pharmaceuticals synthesizing, synthesis of organic products, perfumery.

Specifications

assay (G.C.) (v/v).....	min. 99,9 %	magnesium (Mg).....	max. 0,1 ppm
identity (IR-spectrum).....	passes test	manganese (Mn).....	max. 0,02 ppm
density (20°/4°).....	0,789 - 0,790	molybdenum (Mo).....	max. 0,05 ppm
appearance.....	clear	nickel (Ni).....	max. 0,02 ppm
colour (Hazen).....	max. 10	platinum (Pt).....	max. 0,02 ppm
acidity.....	max. 0,0002 meq/g	silver (Ag).....	max. 0,02 ppm
solubility in water.....	passes test	thallium (Tl).....	max. 0,02 ppm
acidity or alkalinity.....	max. 0,0003 %	tin (Sn).....	max. 0,1 ppm
chlorides (Cl).....	max. 0,00003 %	titanium (Ti).....	max. 0,02 ppm
nitrates (NO ₃).....	max. 0,00003 %	vanadium (V).....	max. 0,02 ppm
phosphates (as PO ₄).....	max. 0,00003 %	zinc (Zn).....	max. 0,1 ppm
sulfates (SO ₄).....	max. 0,00003 %	zirconium (Zr).....	max. 0,02 ppm
aluminium (Al).....	max. 0,5 ppm	formaldehyde.....	max. 0,0005 %
antimony (Sb).....	max. 0,02 ppm	furfural.....	passes test
arsenic (As).....	max. 0,02 ppm	fusel oil.....	passes test
barium (Ba).....	max. 0,1 ppm	acetaldehyde and acetal (G.C.).....	max. 0,001 %
beryllium (Be).....	max. 0,02 ppm	acetone (G.C.).....	max. 0,001 %
bismuth (Bi).....	max. 0,02 ppm	isoamyl alcohol (G.C.).....	max. 0,05 %
boron (B).....	max. 0,02 ppm	benzene (G.C.).....	max. 0,0002 %
cadmium (Cd).....	max. 0,05 ppm	methanol (G.C.).....	max. 0,01 %
calcium (Ca).....	max. 0,5 ppm	methylethylketone (G.C.).....	max. 0,02 %
chromium (Cr).....	max. 0,02 ppm	2-propanol (G.C.).....	max. 0,003 %
cobalt (Co).....	max. 0,02 ppm	higher alcohols (G.C.).....	max. 0,01 %
copper (Cu).....	max. 0,02 ppm	aldehydes (as CH ₃ CHO).....	max. 0,001 %
gallium (Ga).....	max. 0,02 ppm	carbonyl compounds (as CO).....	max. 0,003 %
gold (Au).....	max. 0,02 ppm	substances darkened by H ₂ SO ₄	passes test
indium (In).....	max. 0,02 ppm	UV spectroscopy.....	passes test
iron (Fe).....	max. 0,1 ppm	substances reducing KMnO ₄	passes test
lead (Pb).....	max. 0,1 ppm	residue on evaporation.....	max. 0,0005 %
lithium (Li).....	max. 0,02 ppm	water (v/v) (K.F.).....	max. 0,1 %

Physical data

- Density: 0,79 g/cm³
- Solub. in water: (20 °C): miscible
- Melting point: -114,5 °C
- Boiling point: 78,3 °C
- Flash point: 13 °C
- Ignition temperature: 425 °C
- Vapour pressure: (20 °C) 59 hPa
- Viscosity: (20 °C) 1,2 mPas
- Dipolar moment: (20 °C) 1,7 Debye
- Dielectric const.: (25 °C) 24,3
- Evap. heat: (78 °C) 855 KJ/kg
- Saturation conc.: (20 °C) 105 g/m³
- Expl. limit (upper): 15 Vol%
- Expl. limit (lower): 3,5 Vol%
- pH(10 g/l H₂O, 20 °C) 7,0

Safety - GHS**Signal Word:** Danger**Hazard Statements:**

H225: Highly flammable liquid and vapour.

H319: Causes serious eye irritation.

Precautionary Statements:

P210: Keep away from heat / sparks / open flames / hot surfaces. - No smoking.

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.

P370+P378: In case of fire: Use ... for extinction.

P403+P235: Store in a well-ventilated place. Keep cool.

P501a: Dispose of contents / container in accordance with local / regional / national / international regulations.

Transport/storage

- ADR: 3 F1 II • UN 1170 • ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
- IMDG: 3 II • UN 1170 • ETHYL ALCOHOL
- IATA/ICAO: 3 II • UN 1170 • ETHYL ALCOHOL
- PAX: 353
- CAO: 364
- 10°C - 30°C