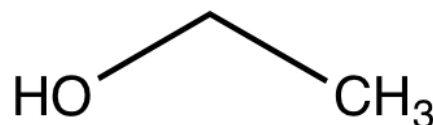


**Identification**

$C_2H_5OH$   
 $M = 46,07 \text{ g/mol}$   
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 %  
identity (IR-spectrum)..... passes test  
density (20°/4°)..... 0,789 - 0,791  
appearance..... clear  
colour (Hazen)..... max. 10  
solubility in water..... passes test  
acidity..... max. 0,0002 meq/g  
alkalinity..... max. 0,0002 meq/g  
chlorides (Cl)..... max. 0,00003 %  
nitrates (NO<sub>3</sub>)..... max. 0,00003 %  
phosphates (as PO<sub>4</sub>)..... max. 0,00003 %  
sulfates (SO<sub>4</sub>)..... max. 0,00003 %  
acetone (G.C.)..... max. 0,001 %  
benzene (G.C.)..... max. 0,0002 %  
isoamyl alcohol (G.C.)..... max. 0,05 %  
methanol (G.C.)..... max. 0,01 %  
methylethylketone (G.C.)..... max. 0,02 %

2-propanol (G.C.)..... max. 0,003 %  
carbonyl compounds (as CO)..... max. 0,03 %  
higher alcohols (G.C.)..... max. 0,01 %  
substances reducing KMnO<sub>4</sub> ..... passes test  
substances darkened by H<sub>2</sub>SO<sub>4</sub>..... passes test  
residue on evaporation..... max. 0,0004 %  
water (v/v) (K.F.)..... max. 0,1 %

liquid chromatography suitability absorbance..... passes test

min. transmission/max. absorbance in a 1,0 cm cell at  
wavelength:..... T(%) A (AU)  
220 nm..... 55 % 0,260 AU  
230 nm..... 72 % 0,143 AU  
245 nm..... 90 % 0,046 AU  
270 nm..... 98 % 0,009 AU

Microfiltered through membranes of pore diameter 0,22 µm

**Physical data**

- Density: 0,79 g/cm<sup>3</sup>
- 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/m<sup>3</sup>
- Expl. limit (upper): 15 Vol%
- Expl. limit (lower): 3,5 Vol%
- pH(10 g/l H<sub>2</sub>O, 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