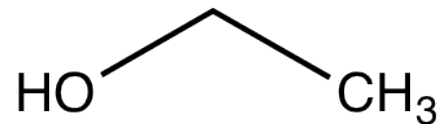


Identification

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 % | vanadium (V)..... | max. 0,000002 % |
| identity (IR-spectrum)..... | passes test | zinc (Zn)..... | max. 0,000001 % |
| density (20°/4°)..... | 0,789 - 0,790 | zirconium (Zr)..... | max. 0,000002 % |
| appearance..... | clear | formaldehyde..... | max. 0,0005 % |
| colour (Hazen)..... | max. 10 | furfural..... | passes test |
| solubility in water..... | passes test | fusel oil..... | passes test |
| acidity..... | max. 0,0002 meq/g | acetone (G.C.)..... | max. 0,001 % |
| alkalinity..... | max. 0,0002 meq/g | benzene (G.C.)..... | max. 0,0002 % |
| chlorides (Cl)..... | max. 0,00003 % | isoamyl alcohol (G.C.)..... | max. 0,05 % |
| nitrates (NO3)..... | max. 0,00003 % | methanol (G.C.)..... | max. 0,01 % |
| phosphates (as PO4)..... | max. 0,00003 % | methylethylketone (G.C.)..... | max. 0,02 % |
| sulfates (SO4)..... | max. 0,00003 % | 2-propanol (G.C.)..... | max. 0,003 % |
| aluminium (Al)..... | max. 0,00001 % | acetaldehyde and acetal (G.C.)..... | max. 0,001 % |
| antimony (Sb)..... | max. 0,000002 % | aldehydes (as CH3CHO)..... | max. 0,001 % |
| arsenic (As)..... | max. 0,000002 % | carbonyl compounds (as CO)..... | max. 0,003 % |
| barium (Ba)..... | max. 0,000001 % | higher alcohols (G.C.)..... | max. 0,01 % |
| beryllium (Be)..... | max. 0,000002 % | substances reducing KMnO4..... | passes test |
| bismuth (Bi)..... | max. 0,000002 % | substances darkened by H2SO4..... | passes test |
| boron (B)..... | max. 0,000002 % | residue on evaporation..... | max. 0,0004 % |
| cadmium (Cd)..... | max. 0,000001 % | water (v/v) (K.F.)..... | max. 0,1 % |
| calcium (Ca)..... | max. 0,00003 % | liquid chromatography suitability | |
| chromium (Cr)..... | max. 0,000002 % | absorbance..... | passes test |
| cobalt (Co)..... | max. 0,000002 % | min. transmission/max. absorbance | |
| copper (Cu)..... | max. 0,000002 % | in a 1,0 cm cell at | |
| gallium (Ga)..... | max. 0,000002 % | wavelength: | T(%) A (AU) |
| gold (Au)..... | max. 0,000002 % | 220 nm..... | 55 % 0,260 AU |
| indium (In)..... | max. 0,000002 % | 230 nm..... | 72 % 0,143 AU |
| iron (Fe)..... | max. 0,00001 % | 245 nm..... | 90 % 0,046 AU |
| lead (Pb)..... | max. 0,00001 % | 270 nm..... | 98 % 0,009 AU |
| lithium (Li)..... | max. 0,000002 % | Microfiltered through membranes | |
| magnesium (Mg)..... | max. 0,00001 % | of pore diameter 0,22 µm | |
| manganese (Mn)..... | max. 0,000001 % | | |
| molybdenum (Mo)..... | max. 0,000002 % | | |
| nickel (Ni)..... | max. 0,000002 % | | |
| platinum (Pt)..... | max. 0,000002 % | | |
| silver (Ag)..... | max. 0,000002 % | | |
| thallium (Tl)..... | max. 0,000002 % | | |
| tin (Sn)..... | max. 0,00001 % | | |
| titanium (Ti)..... | max. 0,000002 % | | |

Packaging
Packaging Code

1 |  ET00151000
 2,5 |  ET00152500
 4 |  ET00154000
 7 |  ET0015007E
 25 |  ET0015025S
 100 |  ET0015100S

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: 12 °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.

Precautionary Statements:

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

P241: Use explosion-proof electrical / ventilating / lighting / equipment.

P280: Wear protective gloves / protective clothing / eye protection / face protection.

P240: Ground/bond container and receiving equipment.

P303+P361+P353: IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

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

Toxicological data

- LD 50 (oral, rat): 6200 mg/kg
- MAK: 500 ml/m³, 960 mg/m³
- WGK: 1
- Poison class CH (Swiss): F

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