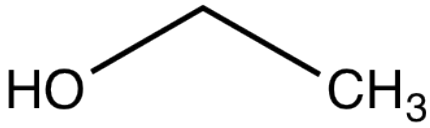
ET0013

Ethanol 96% v/v, Multisolvent® HPLC grade ACS UV-VIS

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)	95,1 - 96,9 %
identity (IR-spectrum)	passes test
density (20°/4°)	0,804 - 0,807
appearance	clear
colour (Hazen)	max. 10
acidity	max. 0,0002 meq/g
alkalinity	max. 0,0002 meq/g
chlorides (Cl)	max. 0,00003 %
nitrates (NO3)	max. 0,00003 %
phosphates (as PO4)	max. 0,00003 %
sulfates (SO4)	max. 0,00003 %
aluminium (Al)	max. 0,00001 %
antimony (Sb)	max. 0,000002 %
arsenic (As)	max. 0,000002 %
barium (Ba)	max. 0,000001 %
beryllium (Be)	max. 0,000002 %
bismuth (Bi)	max. 0,000002 %
boron (B)	max. 0,000002 %
cadmium (Cd)	max. 0,000001 %
calcium (Ca)	max. 0,00003 %
chromium (Cr)	max. 0,000002 %
cobalt (Co)	max. 0,000002 %
copper (Cu)	max. 0,000002 %
gallium (Ga)	max. 0,000002 %
gold (Au)	max. 0,000002 %
indium (In)	max. 0,000002 %
iron (Fe)	max. 0,000002 %
lead (Pb)	max. 0,00001 %
lithium (Li)	max. 0,000002 %
magnesium (Mg)	max. 0,00001 %
manganese (Mn)	max. 0,000002 %
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 %
vanadium (V)	max. 0,000002 %
zinc (Zn)	max. 0,000001 %
zirconium (Zr)	max. 0,000002 %
formaldehyde	max. 0,0005 %
furfural	passes test
fusel oil	passes test
acetaldehyde and acetal (G.C.)	max. 0,001 %
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. 0,002 %
2-propanol (G.C.)	max. 0,003 %
aldehydes (as CH3CHO)	max. 0,001 %
carbonyl compounds (as CO)	max. 0,003 %
higher alcohols (G.C.)	max. 0,01 %
substances reducing KMnO4	passes test
substances darkened by H2SO4	passes test
residue on evaporation	max. 0,0002 %
water (v/v) (K.F.)	3,1- 4,9 %
liquid chromatography suitability	
absorbance	passes test
min. transmission/max. absorbance in a 1,0 cm cell at	
wavelength:	T(%) A (AU)
210 nm	35 % 0,456 AU
220 nm	55 % 0,260 AU
230 nm	72 % 0,143 AU
250 nm	90 % 0,046 AU
270 nm	98 % 0,009 AU
Microfiltered through membranes of pore diameter 0,22 µm	

Packaging

Packaging	Code
1 l	ET00131000
2,5 l	ET00132500
7 l	ET0013007E
25 l	ET0013025S

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Physical data

- Density: 0,81 g/cm3
- Solub. in water: (20 ºC): miscible
- Melting point: -117 ºC
- Boiling point: 78 ºC
- Flash point: 9 ºC
- Ignition temperature: 425 ºC
- Vapour pressure: (20 ºC) ~ 59 hPa
- Viscosity: (20 ºC) 1,2 mPas
- Dipolar moment: (20 ºC) 1,7 Debye
- Dielectric const.: (25 ºC) 24,3
- Saturation conc.: (20 ºC) 105 g/m^3
- Expl. limit (upper): 15 Vol%
- Expl. limit (lower): 3,5 Vol%
- pH(10 g/l H_2O, 20 ºC) 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 (anhydrous substance)
- MAK: 500 ml/m^3 , 960 mg/m^3
- 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