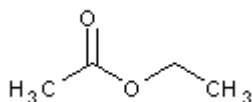
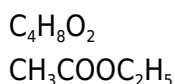




PRODUCT CODE: 191318

Ethyl Acetate (BP, Ph. Eur.) pharma grade



M.= 88,10

CAS [141-78-6]

EINECS 205-500-4

TARIC 2915 31 00 00

FEMA 2414

SYNONYMS: Acetic Acid Ethyl Ester, Acetic Ether

PHYSICAL DATA: liquid, Clear, Colourless, Soluble in water 80 g/l at 20 °C D 20/4 0,902 • M.P.: -83 °C • B.P.: 77 °C • n_{20/D} : 1,3719 • Flash P.: -4 °C • Ign. T.:430 °C • Vap. press. (20 °C) 97 hPa • Viscosity 20 °C 0,44 mPa.s • D. M. 20 °C 1,78 Debye • Dielec. constant 25 °C 6 • Evap. number (DIN 53170) 2,8 • Heat evap. 77 °C 427 KJ/Kg • Satur. conc. 20 °C 336 g/m³ • Expl. limit 2,1 %(V) 11,5 %(V) •

BIBLIOGRAPHY: Merck Index **12**, 3.803 13, 3.792 Sax **EFR000** • Safety **2**, **1563 D** • Kühn-Birett **E 7** • Ullmann (**5**).1, 39 • Beilstein **2**, **125 I**, **54 II**, **129 III**, **211 IV**, **127** • BRN 506104 • ACS **XI** • ISO 6353/3-1987 R - 62, 28 • BP.**2018** • USP -**NF 36** • Ph. Eur. **8.0** (2014) **9.0** (2017) • F.C.C **10 11** • Directive 88/344/E.C.E.92/115/E.C.E.94/52/EC97/60/EC (27/10/1997) 2009/32/CE • DAB 10 - 3 (1994), Royal Decree 472/1990 (6/4/1990), 2667/1998 (11/12/1998), 1101/2011 (22/7/2011) •

HAZARDOUS: C.E: 607-022-00-5 • RTECS: AH 5425000 • LD50 oral rbt 4.934 mg/kg / (OECD 401) • LC50 rat >22,5 mg/l / 8h • LD50 skn rbt >20.000 mg/kg • VLA-ED 400 ppm 1.460 mg/m³ Factor for short-term value (Germany) 2

Derived No Effect Level (DNEL)

Workers Inhalation, acute (systemic) 1.468 mg/m³ Workers Inhalation, acute (local) 1.468 mg/m³ Workers Dermal, long exposure (systemic) 63mg/kg bw/24h Workers Inhalation, long term (systemic) 34 mg/m³ Workers Inhalation, long term (local) 734 mg/m³ Population Inhalation, acute (systemic) 734 mg/m³ Population Inhalation, acute (local) 734 mg/m³ Population, Dermal, long exposure (systemic) 37mg/kg bw/24h Population Inhalation, long term (systemic) 367 mg/m³ Population, oral, long term (systemic) 4.5mg/kg bw/24h Population Inhalation, long term (local) 367 mg/m³

Predicted No Effect Concentration (PNEC)

Freshwater 0.26mg/l Marine water 0.026mg/l Freshwater Sediment 1.25mg/kg Marine water Sediment 0.125mg/kg Soil 0.24mg/kg STP 650mg/l



H: H225 • H319 • EUH066 • H336 •

P: P210 • P233 • P240 • P241 • P242 • P501 • P243 • P261 • P264 • P271 • P280 • P303+P361+P353 • P304+P340 • P305+P351+P338 • P312 • P337+P313 • P370+P378 • P403+P233 • P403+P235 • P405 •

TRANSPORT REGULATIONS: UN: 1173 • ADR: 3/II • IMDG: 3/II • IATA: 3/II • PAX: 353 • CAO: 364 • (D/E) •

WEIGHT/VOLUME INFORMATION: 1l~0,903 kg 1kg~1,107 l

OBSERVATIONS: Storage away from direct light. •

SPECIFICATIONS:

Assay (C ₄ H ₈ O ₂)	99,8-100,5%
Identity :	
Identity according to Pharmacopoeias:	passes test
Density at 20/20	0,898-0,902
Refractive Index n ₂₀ /D	1,370-1,373

Maximum limit of impurities

Appearance of solution	passes test
Acidity	passes test

Insoluble matter in H ₂ O	passes test
Non-volatile matter	0,003 %
Darkened substances by H ₂ SO ₄	passes test
Related substances	passes test
Residual solvents (Ph.Eur.)	passes test
Water (H ₂ O)	0,05 %

Elemental impurities (ICH Q3D):

Class 1	
Cd	0,5 ppm
Pb	0,5 ppm
As	1,5 ppm
Hg	1,5 ppm

Class 2A	
Co	5 ppm
V	10 ppm
Ni	20 ppm

Class 2B

Tl	0,8 ppm
Au	10 ppm
Pd	10 ppm
Ir	10 ppm
Os	10 ppm
Rh	10 ppm
Ru	10 ppm
Se	15 ppm
Ag	15 ppm
Pt	10 ppm

Class 3

Li	55 ppm
Sb	120 ppm
Ba	140 ppm
Mo	25 ppm
Cu	250 ppm
Sn	600 ppm
Cr	25 ppm