

**PRODUCT CODE: 141091****Methanol (USP-NF, BP, Ph. Eur.) pure, pharma grade**

CH₄OCH₃OH

M.= 32,04

CAS [67-56-1]

EINECS 200-659-6

TARIC 2905 11 00 10

SYNONYMS: Carbinol, Methyl Alcohol

PHYSICAL DATA: liquid, Clear, Colourless, Miscible with water, alcohol, ether and methylene chloride • Hygroscopic • D 20/4 0,7915 • M.P.: -97,8 °C • B.P.: 64 - 65 °C • n₂₀/D : 1,3292 • Flash P.:12 °C • Ign. T.:455 °C • Vap. press. (20 °C) 128 hPa • Viscosity 20 °C 0,52 mPa.s • D. M. 20 °C 1,7 Debye • Dielec. constant 25 °C 32,6 • Evap. number (DIN 53170) 6,3 • Heat evap. 65 °C 1100 KJ/Kg • Satur. conc. 20 °C 166 g/m³ • Expl. limit 5,5 %(V) 44 %(V) •

BIBLIOGRAPHY: Merck Index **13**, 5.984 Sax **MDS250** • Safety **2**, **2281 C** • Kühn-Birett **M 10** • Ullmann **(5.)5**, 212 • Beilstein **1**, **273 I**, **131 II**, **252 III**, **1147 IV**, **1127** • BRN 1098229 • ACS **XI** • ISO 6353/2-1983R - 18, 25 • BP.**2018** • USP -**NF 36** • Ph. Eur. 5.2, 3234 **9.0** (2017) 5.2, 3234 • 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 • Royal Decree 472/1990 (6/4/1990), 2667/1998 (11 /12/1998), 1101/2011 (22/7/2011) •

HAZARDOUS: C.E: 603-001-00-X • RTECS: PC 1400000 • LD50 oral rat 1.187 - 2.769 mg/kg • LC50 rat 128,2 mg/l / 4h • LD50 skn rbt 17.100 mg/kg • VLA-ED 200 ppm 266 mg/m³



H: H225 • H331 • H311 • H301 • H370 •

P: P280 • P210 • P233 • P309 • P310 • P302+P352 • P501 •

TRANSPORT REGULATIONS: UN: 1230 • ADR: 3(6.1)/II • IMDG: 3(6.1)/II • IATA: 3(6.1)/II • PAX: 352 • CAO: 364 • (D/E) •

WEIGHT/VOLUME INFORMATION: 1l~0,792 kg 1kg~1,263 l

SPECIFICATIONS:

Minimum assay (G.C.)	99,5%
Identity :	
Identity according to Pharmacopoeias:	passes test
Density at 20/20	0,791-0,793
Refractive Index n ₂₀ /D	1,328-1,330

Maximum limit of impurities

ABS	
at λ 230 nm	0,15 UA
at λ 250 nm	0,05 UA
at λ 270 nm	0,02 UA
at λ 290 nm	0,01 UA
Appearance	passes test
Acidity(as CH ₃ COOH)	0,003%

Alkalinity	0,0003 %
Insoluble matter in H ₂ O	passes test
Non-volatile matter	0,001 %
Reducing substance to KMnO ₄ (as O)	0,0005 %
Darkened substances by H ₂ SO ₄	passes test
Clarity and colour	passes test
Related substances (G.C.)	
Individual impurity	0,1 %
Total impurities	0,3 %
Disregard limit	0,005 %
Residual solvents (Ph.Eur/USP)	passes test
Benzene	0,0002%
Acetone (G.C.)	0,002%
Acetone and aldehydes (as CH ₃ COCH ₃)	0,003%
Ethanol (G.C.)	0,1%
Water (H ₂ O)	0,1 %

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