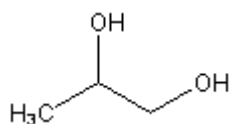


**PRODUCT CODE: 141545****1,2-Propanediol (USP, BP, Ph. Eur., JP) pure, pharma grade**

M.= 76,10

CAS [57-55-6]

EINECS 200-338-0

TARIC 2905 32 00 00

SYNONYMS: 1,2-Propileneglycol

PHYSICAL DATA: liquid, viscous, Clear, Colourless, Miscible with water • Hygroscopic • D 20/4 1,042 • M.P.: -59 °C • B.P.: 189 °C • pH(100g/l) 6 - 8 • n₂₀/D : 1,4324 • Flash P.: 107 °C • Ign. T.: 420 °C • Vap. press. (80 °C) 12 hPa • Viscosity 20 °C 45 mPa.s • Heat evap. 189 °C 707 KJ/Kg • Expl. limit 2,6 %(V) 12,6 %(V) •

BIBLIOGRAPHY: Merck Index **13**, 7.947 14, 7.855 Sax **PLM000** • Kühn-Birett **P 63** • Ullmann (**4.**) **19**, 425 • Beilstein **1**, **472 I**, **245 II**, **535 III**, **2142 IV**, **2468** • BRN 1340498 • ACS **XI** • BP. **2018** • USP -**NF 36** • Ph. Eur. **8.0** (2014) **9.0** (2017) • F.C.C **10 11** • BOE **243**(8-10-2009) • Regulation (EU) n° 231/2012 •

HAZARDOUS: RTECS: TY 2000000 • LD50 oral rat 20.000 mg/kg • LD50 skn rbt 20.800 mg/kg •

WEIGHT/VOLUME INFORMATION: 1l~1,040 kg 1kg~0,962 l

SPECIFICATIONS:

Minimum assay (G.C.)	99,5%
Identity :	
Identity according to Pharmacopoeias:	passes test
Density at 25/25	1,035-1,037
Density at 20/20	1,035-1,040
Range of Distillation (min. 95%)	184-189°C

Refractive Index n ₂₀ /D	1,431-1,433
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Maximum limit of impurities

Appearance	passes test
Acidity(USP, JP)	passes test
Acidity(Ph. Eur.)	passes test

Reducing substances	passes test
Residue on ignition (as SO ₄)	0,005 %
Chloride (Cl)	0,007%
Sulfate (SO ₄)	0,002%
Oxidizing substances	passes test
Residual solvents (Ph.Eur/USP)	passes test
Glycerol	passes test
Ethylenglycol	0,10%
Diethyleneglycol	0,10%
Water (H ₂ O)	0,1 %
Heavy metals (as Pb)	0,0005%

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