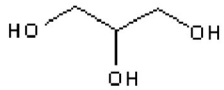
PanReac AppliChem ITW Reagents

PRODUCT CODE: 141339

Glycerol (USP, BP, Ph. Eur.) pure, pharma grade

$C_3H_8O_3$



M.= 92,10 CAS [56-81-5] EINECS 200-289-5
TARIC 2905 45 00 00

SYNONYMS: 1,2,3-Propanetriol, Glycerol

PHYSICAL DATA: liquid, Clear, viscous, Colourless, Miscible with water • Hygroscopic • D 20/4 1,262 • M.P.: 17,8 °C • B.P.: 290 °C • pH(100g/l)5 • n20/D **:** 1,474 • Flash P.:176 °C • Ign. T.:429 °C • Vap. press. (20 °C) 0,01 hPa • Viscosity 20 °C 1.400 mPa.s • Dielec. constant20 °C 42,5 • Heat evap. 290 °C 826 KJ/Kg •
BIBLIOGRAPHY: Merck Index **12,** 4.493 13**,** 4.497 Sax **GGA**000 • Safety **2 , 1782 D** • Römp **8 , 1512** • Kühn-Birett **G** 4 • Ullmann **(5.)**12 , 477 • Beilstein **1 , 502 I , 266 II , 575 III ,2297 IV , 2751** • BRN 635685 • ACS **XI** • ISO 6353/3-1987R - 64 , 30 • BP**.2020** • USP **42** • Ph. Eur. **9.0** (2017) **10.0** (2020) • F.C.C **10 11** • BOE **243**(8-10-2009) • Regulation (EU) nº 231/2012 BS 2621-5 •

HAZARDOUS: RTECS: MA 8050000 • LD50 oral rat 12.600 mg/kg • VLA-ED 10 mg/m3

WEIGHT/VOLUME INFORMATION: 1l~1,259 kg 1kg~0,794 l

DOMINIQUE DUTSCHER SAS

SPECIFICATIONS:

Assay (C3H8O3) calc. a.d.s.	99,0-101,0%
Identity :	
Identity according to Pharmacopoeias:	passes test
Density at 25/25	>= 1,249
Density at 20/20	1,258 - 1,268

Refractive Index n20/D	1,470-1,475

Maximum limit of impurities

Appearance of solution	passes test
Acidity or alkalinity	passes test
Residue on ignition (as SO4)	0,01 %
Sugars	passes test
Chloride (Cl)	0,001%
Ammonium (NH4)	0,001%
Sulfate (SO4)	0,002%
Color	passes test
Halogenated compounds (as Cl)	0,003 %
Residual solvents (Ph.Eur/USP)	passes test
Organic impurities - Related substances	
Individual	0,1 %
Total	1,0 %
Aldehydes (as CH2O)	0,0010%
Diethyleneglycol (USP)	0,025%
Ethylenglycol (USP)	0,025%
Esters	passes test
Impurity A and related substances (Ph. Eur.)	
Impurity A (Diethyleneglycol)	0,1 %
Individual Tr < Tr glycerine	0,1 %
Total impurities Tr > Tr glycerine	0,5 %
Water (H2O)	0,5 %

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

DOMINIQUE DUTSCHER SAS

GLYCERINE OF VEGETABLE ORIGIN

Ed.: 12 . Vig.: 09.05.2019 .

Prod.: 141339

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