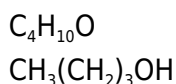


**PRODUCT CODE: 361082****1-Butanol for UV, IR, HPLC**

M.= 74,12

CAS [71-36-3]

EINECS 200-751-6

TARIC 2905 13 00 00

FEMA 2178

**SYNONYMS:** Butyl Alcohol

**PHYSICAL DATA:** liquid, Clear, Colourless, Soluble in water 77 g/l at 20 °C Hygroscopic • D 20/20 0,81 • M.P.: -90 °C • B.P.: 118 °C • n<sub>20/D</sub>: 1,3993 • Flash P.:36 °C • Ign. T.:340 °C • Vap. press. (20 °C) 6,7 hPa • Viscosity 20 °C 2,95 mPa.s • D. M. 20 °C 1,66 Debye • Dielec. constant 20 °C 17,8 hPa • Evap. number (DIN 53170) 33 • Satur. conc. 20 °C 20 g/m<sup>3</sup> • Expl. limit 1,4 % (V) 11,3 % (V) •

**BIBLIOGRAPHY:** Merck Index **13**, 1.539 14, 1.540 Sax **BPW500** • Safety **2** , **604 D** • Kühn-Birett **B 39** • Ullmann **(5.)4** , 471 • Beilstein **1** , **367 I** , **186 II** , **387 III** , **1480 IV** , **1506** • BRN 969148 • ACS **XI** • ISO 6353/3-1987 R - 52 , 16 • BP.**2018** • USP **-NF 36** • F.C.C **10** • 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: 603-004-00-6 • RTECS: EO 1400000 • LD50 oral rat 4.360 mg/kg • LC L0 inh rat 8000 ppm / 4h • LC50 rat 8000ppm / 4h • LD50 skn rbt 3.400 mg/kg • VLA-EC 50 ppm 154 mg/m<sup>3</sup>



H: H226 • H302 • H315 • H318 • H336 • H335 •

P: P210 • P233 • P240 • P241 • P242 • P243 • P261 • P264 • P270 • P271 • P280 • P301+P312 • P302+P352 • P303+P361+P353 • P304+P340 • P305+P351+P338 • P310 • P312 • P321 • P330 • P332+P313 • P362 • P370+P378 • P403+P233 • P403+P235 •

**TRANSPORT REGULATIONS:** UN: 1120 • ADR: 3/III • IMDG: 3/III • IATA: 3/III • PAX: 355 • CAO: 366 • (D/E) •**WEIGHT/VOLUME INFORMATION:** 1l~0,810 kg 1kg~1,235 l

**SPECIFICATIONS:**

Minimum assay (G.C.)	99,9%
Density at 20/4	0,808-0,810
<b>Maximum limit of impurities</b>	
APHA colour	10
Acidity	0,0002 meq/g
Alkalinity	0,0002 meq/g
Non-volatile matter	0,0003 %
Water (H <sub>2</sub> O)	0,03 %
Suitability for IR spectrometry:	passes test
UV Spectrum (1cm cell; Ref.: water):	
Transmittance at 207 (Cut off) nm	<sup>3</sup> 10 %
Transmittance at 210 nm	<sup>3</sup> 25 %
Transmittance at 220 nm	<sup>3</sup> 50 %
Transmittance at 230 nm	<sup>3</sup> 75 %
Transmittance at 240 nm	<sup>3</sup> 85 %
Transmittance at 250 nm	<sup>3</sup> 94 %
Transmittance at 270-450 nm	<sup>3</sup> 98 %
Data of interest in HPLC:	
P' + 0,25 E	8,3
Rohrschneider Polarity	3,9
Elutropic value E° (Al <sub>2</sub> O <sub>3</sub> )	0,7
Sol. H <sub>2</sub> O in solv. at 20°C	20,1

**For critical jobs, purge with nitrogen.**

**Microfiltered product (0.2 µm) and bottled under nitrogen atmosphere.**