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CERTIFICATE OF ANALYSIS**AL0173_23672302/1**

Product 1-Butanol, for analysis, ExpertQ®, ACS, ISO, Reag. Ph Eur

Batch 23672302

AL0173

Quality release date 23/03/2023

Expiry date 03/2028

Analysis	Batch value	Specifications
Assay (G.C.)	99,81 %	≥ 99,5
Identity (IR-Spectrum)	passes test	passes test
Density (20°/4°)	0,8098 g/mL	0,809 - 0,810
Density (20°/20°)	0,8112 g/mL	0,810 - 0,812
Appearance	clear	clear
Colour (Hazen)	1	≤ 10
Boiling point	116 - 119 ° C	116 - 119
Acidity	0,00012 meq/g	≤ 0,0008
Aluminium (Al)	< 0,5 ppm	≤ 0,5
Barium (Ba)	< 0,1 ppm	≤ 0,1
Boron (B)	< 0,02 ppm	≤ 0,02
Cadmium (Cd)	< 0,05 ppm	≤ 0,05
Calcium (Ca)	< 0,5 ppm	≤ 0,5
Chromium (Cr)	< 0,02 ppm	≤ 0,02
Cobalt (Co)	< 0,02 ppm	≤ 0,02
Copper (Cu)	< 0,02 ppm	≤ 0,02
Iron (Fe)	< 0,1 ppm	≤ 0,1
Lead (Pb)	< 0,1 ppm	≤ 0,1
Magnesium (Mg)	< 0,1 ppm	≤ 0,1
Manganese (Mn)	< 0,02 ppm	≤ 0,02
Nickel (Ni)	< 0,02 ppm	≤ 0,02
Tin (Sn)	< 0,1 ppm	≤ 0,1
Zinc (Zn)	< 0,1 ppm	≤ 0,1
Aldehydes	passes test	passes test
Carbonyl compounds (as CO)	< 0,01 %	≤ 0,01
2-Butanol (G.C.)	0,0006 %	≤ 0,05
Butyraldehyde (G.C.)	0,0047 %	≤ 0,01
Dibutyl ether (G.C.)	< 0,1 %	≤ 0,1
Isobutanol (G.C.)	0,11 %	≤ 0,15
Substances darkened by H2SO4	passes test	passes test
Residue on evaporation	0,0004 %	≤ 0,001
Water (K.F.)	0,0206 %	≤ 0,1

For laboratory use only

Results marked with # are out of specifications.
This certificate does not exempt the user from checking the results upon receipt of the goods.
Any copy of our CoA may be obtained from our website at www.scharlab.com

Marta Martinez Casals
Laboratory Technician