

**Scharlab S.L.**

Crtra.Polinya a Sentmenat, Km 8,2

08181 Sentmenat

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CERTIFICATE OF ANALYSIS**TO0085_23921111/1**

Product Toluene, Multisolvant® HPLC grade ACS ISO UV-VIS

Batch 23921111

TO0085

Quality release date 21/06/2023

Expiry date 06/2028

Analysis	Batch value	Specifications
Assay (G.C.)	99,93 %	≥ 99,9
Identity (IR-Spectrum)	passes test	passes test
Density (20°/4°)	0,8669 g/mL	0,864 - 0,868
Density (20°/20°)	0,8685 g/mL	0,865 - 0,869
Appearance	clear	clear
Colour (Hazen)	4	≤ 10
Acidity	0,00001 meq/g	≤ 0,0002
Alkalinity	< 0,0002 meq/g	≤ 0,0002
Chlorides (Cl)	< 0,00005 %	≤ 0,00005
Sulfates (SO4)	< 0,0001 %	≤ 0,0001
Aluminium (Al)	< 0,1 ppm	≤ 0,1
Antimony (Sb)	< 0,02 ppm	≤ 0,02
Arsenic (As)	< 0,02 ppm	≤ 0,02
Barium (Ba)	< 0,01 ppm	≤ 0,01
Beryllium (Be)	< 0,02 ppm	≤ 0,02
Bismuth (Bi)	< 0,1 ppm	≤ 0,1
Boron (B)	< 0,02 ppm	≤ 0,02
Cadmium (Cd)	< 0,01 ppm	≤ 0,01
Calcium (Ca)	< 0,3 ppm	≤ 0,3
Chromium (Cr)	< 0,02 ppm	≤ 0,02
Cobalt (Co)	< 0,02 ppm	≤ 0,02
Copper (Cu)	< 0,02 ppm	≤ 0,02
Gallium (Ga)	< 0,02 ppm	≤ 0,02
Gold (Au)	< 0,1 ppm	≤ 0,1
Indium (In)	< 0,02 ppm	≤ 0,02
Iron (Fe)	< 0,1 ppm	≤ 0,1
Lead (Pb)	< 0,1 ppm	≤ 0,1
Lithium (Li)	< 0,02 ppm	≤ 0,02
Magnesium (Mg)	< 0,1 ppm	≤ 0,1
Manganese (Mn)	< 0,01 ppm	≤ 0,01
Molybdenum (Mo)	< 0,05 ppm	≤ 0,05
Nickel (Ni)	< 0,02 ppm	≤ 0,02
Platinum (Pt) ppm	< 0,02 ppm	≤ 0,02
Silver (Ag)	< 0,02 ppm	≤ 0,02
Thallium (Tl)	< 0,05 ppm	≤ 0,05
Tin (Sn)	< 0,1 ppm	≤ 0,1
Titanium (Ti)	< 0,05 ppm	≤ 0,05
Vanadium (V)	< 0,05 ppm	≤ 0,05
Zinc (Zn)	< 0,01 ppm	≤ 0,01
Zirconium (Zr)	< 0,02 ppm	≤ 0,02

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.comMarta Martinez Casals
Laboratory Technician

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Analysis	Batch value	Specifications
Benzene (G.C.)	0,0125 %	≤ 0,05
Sulfur compounds (as S)	< 0,003 %	≤ 0,003
Tiophene (C ₄ H ₄ S)	< 0,0001 %	≤ 0,0001
Substances darkened by H ₂ SO ₄	passes test	passes test
Residue on evaporation	0,0001 %	≤ 0,0002
Water (K.F.)	0,009 %	≤ 0,02
UV spectroscopy in a 1,0 cm cell:		
min. transmission at 285 nm	14,99 %	≥ 10
min. transmission at 292 nm	59,96 %	≥ 50
min. transmission at 305 nm	85,28 %	≥ 80
min. transmission at 317 nm	92,68 %	≥ 90
min. transmission at 350 nm	99,88 %	≥ 98
max. absorbance at 285 nm	0,824 AU	≤ 1,000
max. absorbance at 292 nm	0,222 AU	≤ 0,301
max. absorbance at 305 nm	0,069 AU	≤ 0,097
max. absorbance at 317 nm	0,033 AU	≤ 0,046
max. absorbance at 350 nm	0,001 AU	≤ 0,009
Liquid chromatography suitability absorbance	passes test	passes test

Microfiltered through membranes of pore diameter 0,22 µm.

For laboratory use only.

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Marta Martinez Casals
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