

Certificate of Specification

Material : 20821.321 Ethanol absolute AnalaR NORMAPUR

Batch :

CHARACTERISTICS

SPECIFICATIONS

Assay (on anhydrous substance)	Min. 99,8 %
Assay (V/V)	Min. 99,85 %
Acidity	Max. 0,0002 meq/g
Alkalinity	Max. 0,0001 meq/g
Colouration	Max. 10 APHA
Distillation range	78,0 --> 78,5 °C
n _{20/D}	1,360 --> 1,362
Substances discoloured by H ₂ SO ₄	Max. 20 APHA
Aldehydes (as CH ₃ CHO)	Max. 5 ppm
Benzene	Max. 2 ppm
Evaporation residue	Max. 5 ppm
Formaldehyde	Max. 1 ppm
Furaldehyde	Max. 1 ppm
Ketones (as CH ₃ COCH ₃)	Max. 10 ppm
Substances reducing KMnO ₄ (as O)	Max. 4 ppm
Methanol	Max. 100 ppm
Propan-2-ol	Max. 50 ppm
Total heavy alcohols	Max. 100 ppm
Water	Max. 0,1 %
Al (Aluminium)	Max. 0,1 ppm
B (Boron)	Max. 0,02 ppm
Ba (Barium)	Max. 0,05 ppm
Ca (Calcium)	Max. 0,2 ppm
Cd (Cadmium)	Max. 0,02 ppm
Co (Cobalt)	Max. 0,01 ppm
Cr (Chromium)	Max. 0,01 ppm
Cu (Copper)	Max. 0,05 ppm
Fe (Iron)	Max. 0,05 ppm
Mg (Magnesium)	Max. 0,05 ppm
Mn (Manganese)	Max. 0,01 ppm
Ni (Nickel)	Max. 0,02 ppm
Pb (Lead)	Max. 0,05 ppm
Sn (Tin)	Max. 0,05 ppm
Zn (Zinc)	Max. 0,1 ppm

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We certify that this batch conforms to the specifications listed above.

BDL : Below detected limit.

Isabelle Guilpain Head of laboratory - Briare

VWR International

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