Product Specification

Material	20823.460
Material description	Ethanol 96 % vol
Grade	AnalaR NORMAPUR
CAS Number	64-17-5
Molecular formula	H_3CCH_2OH
Molecular mass	46.07

Characteristics	Specifications
Assay (on anhydrous substance)	Min. 99.8 %
Assay (V/V)	95.1 --> 96.9 %
IR Spectrum	Passes test
UV Spectrum	Passes test
Acidity	Max. 0.0002 meq/g
Alkalinity	Max. 0.0001 meq/g
Boiling point	77.5 --> 78.5 °C
Colouration	Max. 10 APHA
Substances coloured by H2SO4	Max. 20 APHA
Aldehydes (as CH3CHO)	Max. 5 ppm
Aldehydes + ketones (as CH3CHO)	Max. 10 ppm
Benzene	Max. 5 ppm
Evaporation residue	Max. 5 ppm
Formaldehyde	Max. 1 ppm
Furaldehyde	Max. 1 ppm
Ketones (as CH3COCH3)	Max. 10 ppm
Methanol	Max. 0.02 %
2-Propanol	Max. 30 ppm
Substances reducing KMnO4 (as O)	Max. 4 ppm
Total heavy alcohols	Max. 100 ppm
Water	5.2 --> 8.2 %
Al (Aluminium)	Max. 0.1 ppm
Ba (Barium)	Max. 0.02 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. 0.1 ppm

>>> Continued on page 2 >>>

For Professional use in Laboratory or Manufacturing. Not for use as an Active Pharmaceutical Ingredient or Food or Animal Feed. Suitability and intended use of the product remains the responsibility of the user.

VWR International LLC, Radnor Corporate Center, Building One, Suite 200, 100 Matsonford Road, Radnor, PA 19087, USA
VWR International bvba, Haasrode Research Park Zone 2020, Geldenaaksebaan 464, 3001 Leuven, Belgium

Product Specification

Characteristics	Specifications
Fe (Iron)	Max. 0.05 ppm
K (Potassium)	Max. 0.1 ppm
Mg (Magnesium)	Max. 0.05 ppm
Mn (Manganese)	Max. 0.01 ppm
Na (Sodium)	Max. 1 ppm
Ni (Nickel)	Max. 0.02 ppm
Pb (Lead)	Max. 0.05 ppm
Sn (Tin)	Max. 0.05 ppm
Sr (Strontium)	Max. 0.02 ppm
Zn (Zinc)	Max. 0.1 ppm

Signature

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

This document has been produced electronically and is valid without a signature.

Isabelle Habay, Head of Laboratory - Briare
VWR International S.A.S.; Z.I. de Vaugereau; FR-45250 Briare; France