Acros Organics BV (Thermo Fisher Scientific)
Janssen Pharmaceuticalaan 3a
Geel,
2440, Belgium

CERTIFICATE OF ANALYSIS

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by Intertek. Certificate Number. 2317548

Catalogue Number	44573
Lot Number	A0482485
Description	Ethanol,99.8%,for analysis,absolute
CAS Number	64-17-5
Quality Test/Release Date	24/Apr/2026
Suggested retest date	24/Apr/2031
Country of Origin	FRANCE
Declaration of Origin	synthetic
BSE/TSE	Not directly derived from or manufactured with any animal byproducts in any way (Including but not limited to fermentation or nutrient broth, catalysts, enzymes).

Result Name	Units	Specifications	Test Value
Appearance (Form)		Clear liquid	Clear liquid
Color scale	APHA	=<10	10
Refractive index		1.3600 to 1.3630 (20°C, 589 nm)	1.3615 (20°C, 589 nm)
Density	kg/l	(20°C) 0.789 to 0.790	(20°C) 0.789
Ethanol	% v/v	99.8 to 100 (calculated)	99.9 (calculated)
Water	%	=<0.2	0.08
Residue after evaporation	%	=<0.0005	=<0.0005
Acidity	meq/g	=<0.0002	0.00013
Alkalinity	meq/g	=<0.0002	0.00001
Heavy metals (as Pb)	ppm	=<1	=<1
Calcium (Ca)	ppm	=<0.5	=<0.5
Chromium (Cr)	ppm	=<0.02	=<0.02
Cobalt (Co)	ppm	=<0.02	=<0.02
Copper (Cu)	ppm	=<0.05	=<0.02
Iron (Fe)	ppm	=<0.2	=<0.1
Magnesium (Mg)	ppm	=<0.1	=<0.1
Manganese (Mn)	ppm	=<0.02	=<0.02
Nickel (Ni)	ppm	=<0.02	=<0.02
Zinc (Zn)	ppm	=<0.1	=<0.1
Substance darkened by H2SO4		passes test	passes test
Substance reducing dichromate		passes test	passes test



Geert Torfs
Supervisor, QC

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of the catalogue number listed above.

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