

## CERTIFICATE OF ANALYSIS

PRODUCT NAME: Ethanol,for HPLC, 99.8%

ITEM NUMBER: E111993  
 BRAND: Aladdin  
 CAS NUMBER: 64-17-5  
 MDL NUMBER: MFCD00003568  
 FORMULA: C<sub>2</sub>H<sub>6</sub>O  
 MOLECULAR WEIGHT: 46.07

TEST	SPECIFICATION		TARGET VALUE
	MIN.	MAX.	
Appearance	Colorless Liquid		
fluorescence (quinine) at 365 nm	0 ppb	1 ppb	1 ppb
fluorescence (quinine)at 254 nm	0 ppb	1 ppb	1 ppb
free acid (as CH <sub>3</sub> COOH)	0 %	0.001 %	0.001 %
Infrared spectrometry	Conforms to Structure		
isopropanol[(CH <sub>3</sub> ) <sub>2</sub> CHOH]	0 %	0.01 %	0.01 %
Methanol(CH <sub>3</sub> OH)	0 %	0.05 %	0.05 %
non-volatile matter	0 %	0.001 %	0.001 %
Purity(GC)	99.8 %	100 %	100 %
Refractive index n <sub>20</sub> /D	1.36	1.362	1.362
UV absorption : 210 nm A:	0	1	1
UV absorption : 225 nm A:	0	0.26	0.26
UV absorption : 254 nm A:	0	0.02	0.02
UV absorption : 300 nm A:	0	0.004	0.004
Water by Karl Fischer	0 %	0.2 %	0.2 %

1 cm path, H<sub>2</sub>O reference