



TOGETHER, HELPING SCIENCE ADVANCE

Brand: Honeywell Riedel-de Haën  
Product: 32221

Ethanol absolute analytical reagent, Reag. ACS, Reag. ISO, Reag. Ph. Eur.

Parameter	Specification	Units
appearance	complying	
identity A	complying	
identity B	complying	
assay (GC)	min. 99.8	Vol.%
boiling range	78 - 79	°C
density (D 20/20)	0.790-0.791	
refractive index (n 20/D)	1.3612-1.3618	
non-volatile matter	max. 0.001	%
water (Karl Fischer)	max. 0.2	%
free acid (as CH <sub>3</sub> COOH)	max. 0.0005	%
free alkali (as NH <sub>3</sub> )	max. 0.0001	%
aluminium (Al)	max. 0.00005	%
boron (B)	max. 0.000002	%
barium (Ba)	max. 0.00001	%
calcium (Ca)	max. 0.00005	%
cadmium (Cd)	max. 0.000005	%
cobalt (Co)	max. 0.000002	%
chromium (Cr)	max. 0.000002	%
copper (Cu)	max. 0.000002	%
iron (Fe)	max. 0.00001	%
magnesium (Mg)	max. 0.00001	%
manganese (Mn)	max. 0.000002	%
nickel (Ni)	max. 0.000002	%
lead (Pb)	max. 0.00001	%
tin (Sn)	max. 0.00001	%
zinc (Zn)	max. 0.00001	%

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Parameter	Specification	Units
heavy metals (as Pb)	max. 0.0001	%
acetone (GC)	max. 0.001	%
aldehydes (as CH <sub>3</sub> CHO)	max. 0.001	%
iso-amyl alcohol (GC)	max. 0.05	%
carbonyl compounds (as CO)	max. 0.003	%
furfural	complying	
methanol (GC)	max. 200	Vol.ppm
2-propanol (GC)	max. 0.003	%
acetone and 2-propanol acc.to ACS	complying	
higher alcohols (GC)	max. 0.01	%
volatile impurities (GC)	complying	
KMnO <sub>4</sub> red. matter (as O)	max. 0.0003	%
reaction against H <sub>2</sub> SO <sub>4</sub>	complying	
UV-absorption	complying	
APHA	max. 10	
solubility in water	complying	