

## SPECIFICATION

Ethanol(95)  
for Medicine Test

REQUIREMENT	SPECIFICATION
* Appearance	Colorless clear liquid
Assay (C <sub>2</sub> H <sub>5</sub> OH)(by density)	94.8~95.8vol%
Density (20°C)	0.808~0.812g/ml
Residue after evaporation	max.0.001%(mass/mass)
Acidity (as CH <sub>3</sub> COOH)	max.0.002%(mass/mass)
Alkalinity (as NH <sub>3</sub> )	max.1ppm(mass/mass)
Heavy metals (as Pb)	max.1ppm(mass/mass)
Aldehydes and ketones (as CH <sub>3</sub> COCH <sub>3</sub> )	max.0.001%(mass/mass)
1-Butanol [CH <sub>3</sub> (CH <sub>2</sub> ) <sub>2</sub> CH <sub>2</sub> OH](GC)	max.0.005%(mass/mass)
1-Propanol (CH <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> OH) (GC)	max.0.005%(mass/mass)
2-Propanol [(CH <sub>3</sub> ) <sub>2</sub> CHOH] (GC)	max.0.01%(mass/mass)
Methanol (CH <sub>3</sub> OH) (GC)	max.0.02%(mass/mass)
3-Methyl-1-Butanol [(CH <sub>3</sub> ) <sub>2</sub> CHCH <sub>2</sub> CH <sub>2</sub> OH] (GC)	max.0.004%(mass/mass)
Substances darkened by sulfuric acid	to pass test
Assay (USP-NF)	94.9~96.0vol%
Assay (Ph.Eur.)	95.1~96.9vol%
Appearance (Ph.Eur.)	to pass test
Acidity or alkalinity (Ph.Eur.)	to pass test
Relative density (Ph.Eur.)	0.805~0.812
Absorbance (Ph.Eur.)	-
Absorbance (240nm) (Ph.Eur.)	maximum 0.40
Absorbance (250~260nm) (Ph.Eur.)	maximum 0.30
Absorbance (270~340nm) (Ph.Eur.)	maximum 0.10
Volatile impurities (Ph.Eur.)	to pass test
Residue on evaporation (Ph.Eur.)	maximum 25ppm m/v

JIS K 8102-2012(\*:Additional test performed by Wako but not required by JIS)(USP-NF)(Ph.Eur.)