

## SPECIFICATION

## Acetonitrile

for the Japanese Pharmacopoeia General Tests (for LC)

REQUIREMENT	SPECIFICATION
Description (JP)	Clear, colorless liquid
Absorbance (200nm) (JP)	not more than 0.07
Absorbance (210nm) (JP)	not more than 0.046
Absorbance (220nm) (JP)	not more than 0.027
Absorbance (230nm) (JP)	not more than 0.014
Absorbance (240nm) (JP)	not more than 0.009
* Absorbance (200nm)	max.0.05
* Absorbance (210nm)	max.0.03
* Absorbance (220nm)	max.0.02
* Absorbance (230nm)	max.0.01
* Absorbance (240nm)	max.0.005
* Ammonium (NH <sub>4</sub> )	max.0.3ppm
* Peroxides (as H <sub>2</sub> O <sub>2</sub> )	max.5ppm
* Fluorescence test	to pass test
* Gradient test	to pass test
Description (USP-NF)	Colorless clear liquid
Assay (USP-NF)	minimum 99.5%
Color (APHA) (USP-NF)	maximum 10
Residue after evaporation (USP-NF)	maximum 0.005%
Titration acid (USP-NF)	maximum 8 μeq/g
Titration base (USP-NF)	maximum 0.6 μeq/g
Water (H <sub>2</sub> O) (USP-NF)	maximum 0.3%
Absorbance (254nm) (USP-NF)	maximum 0.01
Absorbance (220nm) (USP-NF)	maximum 0.05
Absorbance (190nm) (USP-NF)	maximum 1.00
Absorbance (250~280nm) (USP-NF)	not more than 0.01
Gradient elution (USP-NF)	passes test
Description (Ph.Eur.)	Colorless clear liquid
Sp. Gr.(20/20°C) (Ph.Eur.)	about 0.78

Refractive index 20°C (Ph.Eur.)	about 1.344
pH of a 100g/L solution (Ph.Eur.)	Neutral to litmus paper
Distillation range (80~82°C) (Ph.Eur.)	Not less than 95%
Absorbance (255~420nm) (Ph.Eur.)	maximum 0.01
Absorbance (240~800nm) (Ph.Eur.)	maximum 0.01
Assay (Ph.Eur.)	minimum 99.9%
Absorbance (200nm) (Ph.Eur.)	maximum 0.10
* Appearance	Colorless clear liquid
** Assay (CH <sub>3</sub> CN) (GC)	min.99.8%(mass/mass)
Solubility in water	to pass test
** Density (20°C)	0.780~0.783g/ml
Refractive index 20°C	1.343~1.346
** Water	max.0.05%(mass/mass)
Residue after evaporation	max.0.005%(mass/mass)
Acidity (as CH <sub>3</sub> COOH)	max.0.01%(mass/mass)
Hydrogen cyanide	to pass test
Substances reducing permanganate	to pass test

This product is suited for Acetonitrile for liquid chromatography of general tests on The Japanese Pharmacopoeia. (\*:Additional test performed by Wako)USP-NF Reagent Acetonitrile, SpectrophotometricPh. Eur. Reagent Acetonitrile, Acetonitrile for chromatography and Acetonitrile R1JIS K 8032:2013(\*\*:The specification is originally set by Wako)