Specification for Acetonitrile	**Code No. : QS /P12/FP/179** **Page No. : 1 of 1** **Revision : 03** **Date : 13.05.2024**

Sr. No.	Characteristic	Requirements	Method of Test Ref. Instruction No.
1	Description	Clear colourless liquid.	Visual
2	Identification by GC	Retention time of main peak confirms to reference	TI-75
3	Identification by IR	Confirms to reference	TI – 52
4	Purity by GC	Min. 99.95 %	TI – 75
5	Other impurities by GC	Max. 0.01%	TI-75
6	Allyl alcohol	Max. 5 ppm	TI-75
7	Acrylonitrile content by GC	Max. 5 ppm	TI –75
8	Propionitrile Content by GC	Max. 0.04%	TI-75
9	Acetamide by GC	Max. 3 ppm	TI- 365
10	Methacrylonitrile	Max. 5 ppm	TI-75
11	2-Ethylhexanol by GC	Max. 0.0005%	TI- 75
12	Residue on evaporation	Max. 0.0001%	TI – 21
13	Moisture Content (by KF)	Max. 0.02%	TI – 04
14	Color, APHA	Max. 10	TI – 67
15	Density at 20±4°C	0.779 – 0.783 g/ml	TI – 02
16	Refractive index at 20±4°C	1.343 – 1.345	TI – 65
17	Distillation range	Min.95% distillation at 80–82°C	TI – 03
18	Acidity	Max. 0.0002 meq/g	TI - Autotitrator
19	Alkalinity	Max. 0.0002 meq/g	TI - Autotitrator
20	Iron Content	Max. 0.1ppm	TI-248
21	Accepted Transmittance for UV detection (1 cm cell, reference : water) Wavelength (nm) 193 195 200 210 215 220 225 230 235 240 245 250	 **Transmittance (Min)** 60% 80% 80% 85% 88% 90% 92% 98% 98% 98% 99% 99%	TI – 58

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22	HPLC gradient at 210 nm 254 nm	 Max. 1 mAU Max. 0.5 mAU	TI - HPLC

Additional Test *

23	Fluorescence (as quinine) at 254 nm 365 nm	 Max. 1 ppb Max. 0.5 ppb	TI - Fluorescence Spectrophotometer.

Executive QC
Prepared by

Manager QC
Checked & Approved by