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CERTIFICATE OF ANALYSIS

◇ Commodity : JPS - 34U

◇ Customer : Lumileds

◇ Lot No. : U3425L04T21

◇ Issued Date : 2025.12.04

Typical Properties		Unit	Specification	Results
Appearance		-	Yellow Transparent Liquid	OK
Color		Gardner	1 ~ 15	9.7
pH (10% aq. Soln.)		-	12.2 ~ 13.0	12.7
Alkalinity		-	14.0 ~ 15.0	14.6
Water contents		wt%	7.5 ~ 9.0	8.0
Specific Gravity (@ 25 °C)		-	1.02 ~ 1.06	1.05
Chlorine		ppm	5 max.	1.1
Trace Metal				
Metal	Aluminum (Al)	ppb	100 max.	1.8
	Calcium (Ca)	ppb	100 max.	3.5
	Chromium (Cr)	ppb	100 max.	1.2
	Copper (Cu)	ppb	100 max.	1.0
	Iron (Fe)	ppb	100 max.	9.8
	Lead (Pb)	ppb	100 max.	0.2
	Magnesium (Mg)	ppb	100 max.	0.5
	Nickel (Ni)	ppb	100 max.	2.0
	Potassium (K)	ppb	100 max.	2.3
	Sodium (Na)	ppb	100 max.	11.1
	Tin (Sn)	ppb	100 max.	0.5
	Titanium (Ti)	ppb	100 max.	0.0
	Zinc (Zn)	ppb	100 max.	9.8
	Gold (Au)	ppb	100 max.	1.0
	Manganese (Mn)	ppb	100 max.	0.8
Particle				
0.3 um		ea/ml	< 100	43.1
0.5 um		ea/ml	< 50	32.3

- This certificate confirms that the above results are true and correct.

- Manufacturing date : December.04.2025

- Expiry date : June.03.2027

JAEWON INDUSTRIAL CO., LTD

Kyung su Lee
Quality Management Department