

Certificate of Analysis

Date of Testing: 2025-04-11 15:45:21

Date of Next Testing: 2028-04-10 15:45:21

Product Name: **Kolliphor® P 188**

CAS Number: 9003-11-6

Specifications & Purity:

Lot #: D2507546

SKU #: **K434430**

Version: **1**

Analysis #: **489204**

Storage Temperature: Room temperature

Parameter	Limit Values	Result
Water by Karl Fischer	0-0.75 (%)	0.12 %
pH Value (1:40)	6.0-7.5	6.80000
Cloud Point, 10% solution	≥100 (°C)	101.00000 °C
APHA Color (50:50 in MeOH)	≤100	60.00000
Ethyleneoxide	0-1 (ppm)	1.00 ppm
Propylene Oxide	0-5 (ppm)	0.50000 ppm
1,4 Dioxane	0-5 (ppm)	0.10000 ppm
Congeeing Point	46-56 (°C)	49.00000 °C
Butylhydroxytoluene	50-125 (ppm)	106.00000 ppm
Arsenic(As)	0-2 (ppm)	1.00000 ppm
Oxyethylene content Weight	79.9-83.7 (%)	81.00000 %
Residue on Ignition	0-0.3 (%)	0.10000 %
Heavy metals	0-20 (ppm)	14.20 ppm
Ethyleneglycol (EG)	≤620 (ppm)	600.00000 ppm
Ash	0-0.4 (%)	0.10 %
pH Value (1:10)	5.0-7.5	6.90000
Average Mn	7680-9510 (g/mol)	8014.00 g/mol
Sum of EG and DEG(≤0.25%)	Pass	Pass
Identification (IR)	Passes test	Passes test
Solution(Pass, Clear and colorless)	pass	Pass
Acid	Pass	Pass



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A handwritten signature in black ink that reads "John Su".

John Su
QA & QC Manager