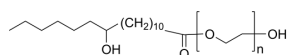


Certificate of Analysis

Product Name:	Solutol HS-15
Cat. No.:	CS-0040442
CAS No.:	61909-81-7
Batch No.:	86334
Chemical Name:	Poly(oxy-1,2-ethanediyl), α -(12-hydroxy-1-oxooctadecyl)- ω -hydroxy-

PHYSICAL AND CHEMICAL PROPERTIES

Molecular Formula:	$(C_2H_4O)_n C_{18}H_{36}O_3$
Storage:	2-8°C, sealed storage, away from moisture
Chemical Structure:	



ANALYTICAL DATA

Appearance:	Colorless to off-white (Oil)
Acid Value:	0.2 mg KOH/g
Hydroxyl Value:	104 mg KOH/g
Iodine Value (Hanus):	0.4 g Iodine/100g
Peroxide value:	<1 meq/kg
Saponification Value:	59 mg KOH/g
Free macrogols	32.7 g/100g
Nickel:	<1 mg/kg
Water:	0.1 g/100g
Total ash:	0.1 g/100g
pH-Value (100 g/L in water):	6.5
Freezing Point:	25
Ethylene Oxide:	<1 mg/kg
1,4-Dioxane:	<10 mg/kg
Diethylene glycol:	<100 mg/kg
Residual solvents acetic acid:	<0.5 g/100g
Residual solvents ethylene glycol:	<50 mg/kg
Total aerobic microbial count (TAMC):	<10 CFU/g
Total combined yeasts/moulds count (TYMC):	<10 CFU/g

Bacterial endotoxine: <9 I.U./g

Conclusion: The product has been tested and complies with the given specifications.

Caution: Product has not been fully validated for medical applications. For research use only.

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