



武汉福鑫化工有限公司

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### CERTIFICATE OF ANALYSIS

Products Name	CAS NO.	Batch No.
Polysorbate 20	9005-64-5	20240215
Mfg. Date	Exp. Date	Package
Feb.,15,2024	Feb., 14,2026	25kg/ Box/Bag/Drum

ITEMS	SPECIFICATIONS	RESULTS
Appearance	pale yellow or yellow viscous oily liquid	Apposite
Colour Lovibond (R/Y)	$\leq 1.5R$ 10Y	0.6R 4.7Y
Solubility	Soluble in water, ethanol, methanol or ethyl acetate and slightly soluble in liquid paraffin.	Apposite
Acid Value(mg KOH/g)	$\leq 2.0$	0.3
(mg KOH/g)Saponification Value	40~50	46.2
(mg KOH/g)Hydroxyl Value	96~108	101.2
(w/%)Water	$\leq 3.0$	2.3
(w/%)Residue on Ignition	$\leq 0.25$	0.10
Pb (mg/kg)Lead	$\leq 2$	<2
(w/%) Oxyethylene	70.0-74.0	72.5
Relative density	1.09~1.12	1.11
(mm <sup>2</sup> /s ,25°C)Viscosity	250~400	327.4
Composition of fatty acid(%)		
C6:0	$\leq 1.0$	0.3
C8:0	$\leq 10.0$	6.9
C10:0	$\leq 10.0$	6.1

C12:0	40~60	49.0
C14:0	14~25	15.4
C16:0	7~15	8.9
C18:0	≤7.0	1.4
C18:1	≤11	10.0
C18:2	≤3	1.1
pH value(5% in water)	4.0~7.5	6.3
(meq/kg)Peroxide value	≤10	0.5
(mg/kg) Ethylene Oxide	≤1	0.02
(mg/kg) Dioxane	≤10	1.4
(%)Ethylene glycol	≤0.01	Not detected
(%)Diethylene glycol	≤0.01	Not detected
(mg/kg)Heavy metals	≤10	<10
(mg/kg)Arsenic	≤2.0	<2
Conclusion	Pass.	

Q.C.: Luo Xiaofeng

Tester: AT02

Re-tester: AT03

