

## Certificate of Analysis

Date of Testing:	2023-08-24 15:56:49
Date of Next Testing:	2026-08-23 15:56:49
Product Name:	<b>TWEEN® 80</b>
CAS Number:	9005-65-6
Specifications & Purity:	viscous liquid, Preservative Free, Low-peroxide; Low-carbonyls
Lot #:	H2307797
SKU #	<b>T485985</b>
<b>Analysis:</b>	<b>255516</b>
Storage Temperature:	Store at -20°C

Parameter	Limit Values	Result
Water by Karl Fischer	0-3 (%)	2.40 %
solvent content by GC(ethanol)	0-0.5 (%)	0.20 %
Peroxide Impurity	0-0.5 (µmol/g)	0.20000 µmol/g
Carbonyl Impurity(As Formaldehyde)	0-1 (µmol/g)	0.20000 µmol/g
Heavy metal (as Pb)	0-0.001 (%)	0.00 %
Acid Value	0-2.2 (mgKOH/g)	0.60 mgKOH/g
Hydroxyl value	65-80 (mgKOH/g)	70.00 mgKOH/g
Saponification value	45-55(mgKOH/g)	50.00 mgKOH/g
Residue on ignition(Ash)	0-0.2 (%)	0.00000 %
Viscosity(25°C)	300-500 (cP)	458.00000 cP
Specific gravity	1.06-1.09	1.08
Iodine value (I2g/100g)	18-24	20.00
Appearance(T485985)	Light Green-Yellow to Green-Yellow to Yellow Viscous Liquid	Light Green-Yellow to Green-Yellow to Yellow Viscous Liquid
Identification	pass	Pass



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ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

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

John Su  
QA & QC Manager