

Certificate of Analysis

Date of Testing: 2025-05-24 13:37:50

Date of Next Testing: 2029-05-23 13:37:50

Product Name: **TWEEN® 20**

CAS Number: 9005-64-5

Specifications & Purity: viscous liquid

Lot #: E2508095

SKU #: **T104863**

Version: **1**

Analysis #: **503031**

Storage Temperature: Room temperature

Parameter	Limit Values	Result
Water by Karl Fischer	0-3 (%)	2.61 %
Acid Value	0-2.2 (mg/g)	0.62 mg/g
Viscosity(25 °C,neat)	275-480 (cP)	291.00 cP
Density (25°C)	1.08-1.12	1.10
Residual Ethylene	0-1 (ppm)	0.20 ppm
Hydroxy Value	96-108 (mgKOH/g)	100.80 mgKOH/g
Dioxane Content	0-10 (ppm)	1.00 ppm
Saponification value	40-50 (mg/g)	44.20 mg/g
Appearance (T104863)	Yellow oily liquid	Yellow oily liquid
Infrared spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager