

Certificate of Analysis

Date of Testing: 2023-02-11 17:47:37
Date of Next Testing: 2027-02-10 17:47:37
Product Name: **TWEEN® 20**
CAS Number: 9005-64-5
Specifications & Purity: viscous liquid
Lot #: B2310087
SKU #: **T104863**
Analysis: 181486
Storage Temperature: Room temperature

Parameter	Limit Values	Result
Water by Karl Fischer	0-3 (%)	2.49 %
Acid Value	0-2.2 (mg/g)	0.60 mg/g
Residual Ethylene	0-1 (ppm)	0.30 ppm
Hydroxy Value	96-108 (mgKOH/g)	100.30 mgKOH/g
Dioxane Content	0-10 (ppm)	5.00 ppm
Saponification value	40-50 (mg/g)	41.80 mg/g
Viscosity(25 °C, neat)	275-480 (cP)	278.00 cP
Density (25°C)	1.08-1.12	1.09
Infrared spectrum	Conforms to Structure	Conforms to Structure
Appearance (T104863)	Yellow oily liquid	Yellow oily liquid



John Su
QA & QC Manager