

Certificate of Analysis

Date of Testing: 2024-07-20 16:12:36
Date of Next Testing: 2028-07-19 16:12:36
Product Name: **TWEEN® 20**
CAS Number: 9005-64-5
Specifications & Purity: viscous liquid
Lot #: G2419005
SKU #: **T104863**
Version: **1**
Analysis #: **388948**
Storage Temperature: Room temperature

Parameter	Limit Values	Result
Water by Karl Fischer	0-3 (%)	2.32 %
Acid Value	0-2.2 (mg/g)	0.58 mg/g
Density (25°C)	1.08-1.12	1.10
Residual Ethylene	0-1 (ppm)	0.20 ppm
Dioxane Content	0-10 (ppm)	1.00 ppm
Viscosity(25 °C,neat)	275-480 (cP)	413.00 cP
Hydroxy Value	96-108 (mgKOH/g)	96.02 mgKOH/g
Saponification value	40-50 (mg/g)	41.00 mg/g
Appearance (T104863)	Yellow oily liquid	Yellow oily liquid
Infrared spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager