

Certificate of Analysis

Date of Testing: 2024-12-02 11:08:38
Date of Next Testing: 2028-12-01 11:08:38
Product Name: **TWEEN® 20**
CAS Number: 9005-64-5
Specifications & Purity: viscous liquid
Lot #: K2422218
SKU #: **T104863**
Version: **1**
Analysis #: **420762**
Storage Temperature: Room temperature

Parameter	Limit Values	Result
Water by Karl Fischer	0-3 (%)	2.50 %
Acid Value	0-2.2 (mg/g)	0.26 mg/g
Viscosity(25 °C,neat)	275-480 (cP)	317.00 cP
Saponification value	40-50 (mg/g)	40.90 mg/g
Density (25°C)	1.08-1.12	1.10
Residual Ethylene	0-1 (ppm)	0.20 ppm
Hydroxy Value	96-108 (mgKOH/g)	98.30 mgKOH/g
Dioxane Content	0-10 (ppm)	1.00 ppm
Appearance (T104863)	Yellow oily liquid	Yellow oily liquid
Infrared spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager