

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2024-11-15 11:39:53

Date of Next Testing: 2028-11-14 11:39:53

Product Name: **TWEEN® 20**

CAS Number: 9005-64-5

Specifications & Purity: viscous liquid

Lot #: K2413150

SKU #: **T104863**

Version: **1**

Analysis #: **420762**

Storage Temperature: Room temperature

Parameter	Limit Values	Result
Water by Karl Fischer	0-3 (%)	2.50470 %
Acid Value	0-2.2 (mg/g)	0.26000 mg/g
Viscosity(25 °C,neat)	275-480 (cP)	317.00000 cP
Saponification value	40-50 (mg/g)	40.90000 mg/g
Density (25°C)	1.08-1.12	1.10390
Residual Ethylene	0-1 (ppm)	0.20000 ppm
Hydroxy Value	96-108 (mgKOH/g)	98.30000 mgKOH/g
Dioxane Content	0-10 (ppm)	1.00000 ppm
Appearance (T104863)	Yellow oily liquid	Yellow oily liquid
Infrared spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager