

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2025-03-13 19:11:25

Date of Next Testing: 2029-03-12 19:11:25

Product Name: **TWEEN® 20**

CAS Number: 9005-64-5

Specifications & Purity: viscous liquid

Lot #: C2510010

SKU #: **T104863**

Version: **1**

Analysis #: **473396**

Storage Temperature: Room temperature

| Parameter             | Limit Values          | Result                |
|-----------------------|-----------------------|-----------------------|
| Water by Karl Fischer | 0-3 (%)               | 2.33000 %             |
| Acid Value            | 0-2.2 (mg/g)          | 0.40000 mg/g          |
| Residual Ethylene     | 0-1 (ppm)             | 0.20000 ppm           |
| Hydroxy Value         | 96-108 (mgKOH/g)      | 96.20000 mgKOH/g      |
| Saponification value  | 40-50 (mg/g)          | 40.50000 mg/g         |
| Viscosity(25 °C,neat) | 275-480 (cP)          | 302.00000 cP          |
| Dioxane Content       | 0-10 (ppm)            | 1.00000 ppm           |
| Density (25°C)        | 1.08-1.12             | 1.08000               |
| Appearance (T104863)  | Yellow oily liquid    | Yellow oily liquid    |
| Infrared spectrum     | Conforms to Structure | Conforms to Structure |



John Su  
QA & QC Manager