

## Certificate of Analysis

Date of Testing: 2023-06-20 15:00:55  
Date of Next Testing: 2026-06-19 15:00:55  
Product Name: **TWEEN® 20**  
CAS Number: 9005-64-5  
Specifications & Purity: Suitable for molecular biology, viscous liquids  
Lot #: F23161117  
SKU #: **T434505**  
**Analysis: 243364**

Parameter	Limit Values	Result
Hydroxy Value	96-108 (mgKOH/g)	100.60 mgKOH/g
Saponification value	40-50 (mgKOH/g)	42.60 mgKOH/g
Acid Value	0-2.2 (mgKOH/g)	0.40 mgKOH/g
Appearance(T434505)	Light Green-Yellow to Green-Yellow and Faint Yellow to Dark Yellow Viscous Liquid	Light Green-Yellow to Green-Yellow and Faint Yellow to Dark Yellow Viscous Liquid
Infrared spectrum	conforms to structure	Conforms to Structure
Solubility (100 mg/ml in H <sub>2</sub> O) pass (Clear Colorless to Yellow)		Pass



John Su  
QA & QC Manager