

Certificate of Analysis

Date of Testing: 2022-02-11 09:50:04

Date of Next Testing: 2026-02-10 09:50:04

Product Name: **Span 20**

CAS Number: 1338-39-2

Specifications & Purity: non-ionic

Lot #: B2207499

SKU #: **S102859****Analysis: 066438**

| Parameter | Limit Values | Result |
|--|-------------------------------|-------------------------------|
| Water by Karl Fischer | 0-1.5 (%) | 0.20 % |
| Refractive index n ₂₀ /D | 1.473-1.476 | 1.48 |
| Acid Value | ≤8 (mgKOH/g) | 4.03 mgKOH/g |
| Hydroxy Value | 330-360 (mgKOH/g) | 340.87 mgKOH/g |
| Heavy metals | 0-0.001 (%) | 0.00 % |
| Saponification value | 160-175 (mgKOH/g) | 166.19 mgKOH/g |
| Ignition Residue (as sulfate) | 0-0.5 (%) | 0.30 % |
| Appearance (S102859) | Yellow to Yellow-Green Liquid | Yellow to Yellow-Green Liquid |
| Solubility in EtOH , Clear,no black insolubles | pass | Pass |

John Su
QA & QC Manager