

## Certificate of Analysis

Date of Testing: 2023-02-09 15:16:51

Date of Next Testing: 2027-02-08 15:16:51

Product Name: **Span 20**

CAS Number: 1338-39-2

Specifications & Purity: non-ionic

Lot #: B2301235

SKU #: **S102859**

**Analysis: 085355**

Parameter	Limit Values	Result
Water by Karl Fischer	0-1.5 (%)	1.15 %
Refractive index n <sub>20</sub> /D	1.473-1.476	1.47
Acid Value	≤8 (mgKOH/g)	4.87 mgKOH/g
Hydroxy Value	330-360 (mgKOH/g)	332.42 mgKOH/g
Heavy metals	0-0.001 (%)	0.00 %
Saponification value	160-175 (mgKOH/g)	169.99 mgKOH/g
Ignition Residue (as sulfate)	0-0.5 (%)	0.41 %
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