

## Certificate of Analysis

1 Reagent Lane  
 Fair Lawn, NJ 07410  
 201.796.7100 tel  
 201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System  
 Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	J20605	Quality Test / Release Date	02/29/2024
Lot Number	240204		
Description	POLYSORBATE 20 ULTRAPURE		
Country of Origin	United States	Suggested Retest Date	Feb/2029
Chemical Origin	Organic - Plant		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Yellow liquid
ACID VALUE	MG KOH/G	<= 2.2	0.7
HYDROXYL NUMBER	MG KOH/G	Inclusive Between 96 - 108	101
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
SAPONIFICATION NUMBER	MG KOH/G	Inclusive Between 40 - 50	47
SOLUBILITY 10% IN H2O	PASS/FAIL	= PASS TEST	PASS TEST
SPECIFIC GRAVITY @ 25 DEG C	GM/ML	> 0	1.103
VISCOSITY 25 DEGREES C, cps	CPS	> 0	382
WATER (H2O)	%	<= 3.0	2.5



Kalyan Paruchuri - Quality Control Supervisor - Bridgewater