

## Certificate of Analysis

1 Reagent Lane	
Fair Lawn, NJ 07410	
201.796.7100 tel	Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System
201.796.1329 fax	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	A516	Quality Test / Release Date	12/27/2023	
Lot Number	234286			
Description	2-PROPANOL, USP			
Country of Origin	Canada	Suggested Retest Date	Dec/2026	
Chemical Origin	Organic - synthetic			
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.			
Comment	This product is free of Genetically Modified Organisns (GMO's). It is free of known allergy-stimulating substances: peanuts, soybeans, milk, eggs, fish, shellfish, tree nuts, and/or wheat or gluten.			

USP Grade					
Result Name	Units	Specifications	Test Value		
APPEARANCE		REPORT	Clear, colorless liquid		
ACIDITY	PASS/FAIL	= PASS TEST	PASS TEST		
ASSAY	%	>= 99.0	99.9		
IDENTIFICATION (ALL LISTED)	PASS/FAIL	= PASS TEST	PASS TEST		
LIMIT OF VOLATILE IMPURITIES	PASS/FAIL	= PASS TEST	PASS TEST		
LIMIT OF VOLATILE IMPURITIES (EACH INDIVIDUAL)	%	<= 0.1	<0.1		
LIMIT OF VOLATILE IMPURITIES (TOTAL)	%	<= 1.0	<1.0		
NON-VOLATILE RESIDUE	%	<= 0.005	0.002		
REFRACTIVE INDEX @ 20 DEG C		Inclusive Between 1.376 - 1.378	1.377		
RESIDUAL SOLVENTS	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS		
SPECIFIC GRAVITY @ 25 C		Inclusive Between 0.783 - 0.787	0.783		
USP PROTOCOL REQUIRED	Meets Requirements	= MEETS REQUIREMENTS	MEETS REQUIREMENTS		
WATER	%	<= 0.5	0.02		

Residual Solvents None of the Class 1 solvents is likely to be present at the specified limits. Cyclohexane is the only Class 2 solvent likely to be present, below the Option 1 limit of 3880 PPM. 1-butanol, 2-butanol, 1-pentanol, 1propanol, acetone, ethanol, and 2-methyl-1-propanol are Class 3 solvents that might be present at less than 0.5%. 2-propanol itself is a class 3 solvent. None of the Class 4 residual solvents are likely to be present.

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above. If there are any questions with this certificate, please call at (800) 227-6701.

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\*Based on suggested storage condition.



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Kulyan Vanuchur

Kalyan Paruchuri - Quality Control Supervisor - Bridgewater

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