

Certificate of Analysis

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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	H303	Quality Test / Release Date	02/10/2023	
Lot Number	224927			
Description	HEXANES - OPTIMA			
Country of Origin	United States	Suggested Retest Date	Feb/2028	
Chemical Origin	Organic - non animal			
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	Clear, colorless liquid	
ASSAY (N-HEXANE)	%	>= 60	68.4	
ASSAY (SUM C6 HYDROCARBONS)	%	>= 99.9	>99.9	
COLOR	APHA	<= 5	<5	
DENSITY AT 25 DEGREES C	GM/ML	Inclusive Between 0.653 - 0.673	0.672	
EVAPORATION RESIDUE	ppm	<= 1	<0.1	
FLUORESCENCE BACKGROUND	ppb	<= 1	<1	
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST	
OPTICAL ABS AT 195 NM	ABS. UNITS	<= 1	0.47	
OPTICAL ABS AT 210 NM	ABS. UNITS	<= 0.25	0.11	
OPTICAL ABS AT 220 NM	ABS. UNITS	<= 0.07	0.04	
OPTICAL ABS AT 254 NM	ABS. UNITS	<= 0.005	0.002	
PESTICIDE RESIDUE ANALYSIS	NG/L	<= 10	<10	
REFRACTIVE INDEX @ 25 DEG C		Inclusive Between 1.375 - 1.385	1.379	
SUITABILITY FOR GC/MS		= PASS TEST	PASS TEST	
SULFUR COMPOUNDS	%	<= 0.005	<0.005	
THIOPHENE	PASS/FAIL	= PASS TEST	PASS TEST	
WATER (H2O)	%	<= 0.01	<0.01	
WATER-SOLUBLE TITRABLE ACID	MEQ/G	<= 0.0003	<0.0001	



Harout Sahagian - Quality Control Supervisor - Fair Lawn

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.

^{*}Based on suggested storage condition.