

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 – 0120632

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	H360	Quality Test / Release Date	05/10/2021
Lot Number	210446		
Description	HEPTANE, OPTIMA		
Country of Origin	China	Suggested Retest Date	May/2026
Chemical Origin	Organic - synthetic		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	CLEAR, COLORLESS LIQUID FREE OF SUSPENDED MATTER
ASSAY (N-HEPTANE)	%	>= 99.0	99.36
ASSAY (SATURATED C7 PLUS METHYLCYCLOHEXANE)	%	>= 99.5	99.94
BOILING TEMP (BEGINNING)	DEG C	Inclusive Between 94.5 - 99.0	96.8
BOILING TEMP (ENDPOINT)	DEG C	Inclusive Between 94.5 - 99.0	98.7
COLOR	APHA	<= 10	5
ECD SENSITIVE IMPURITIES (AS HEPTACHLOR EPOXIDE)	NG/L	<= 10	<1
EVAPORATION RESIDUE	ppm	<= 1	0.3
FILTERED THROUGH 0.2 MICRON FILTER	PASS/FAIL	= PASS TEST	PASS TEST
FLUORESCENCE BACKGROUND	ppb	<= 1	<1.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
OPTICAL ABS AT 197 NM	ABS. UNITS	<= 1.00	0.82
OPTICAL ABS AT 210 NM	ABS. UNITS	<= 0.25	0.12
OPTICAL ABS AT 220 NM	ABS. UNITS	<= 0.10	0.03
OPTICAL ABS AT 225 NM	ABS. UNITS	<= 0.10	0.01
OPTICAL ABS AT 230 NM	ABS. UNITS	<= 0.05	0.01
OPTICAL ABS AT 250 NM	ABS. UNITS	<= 0.01	0.004
OPTICAL ABS AT 260 NM	ABS. UNITS	<= 0.01	0.001
OPTICAL ABS AT 270 NM	ABS. UNITS	<= 0.005	<0.001
OPTICAL ABS AT 300 NM	ABS. UNITS	<= 0.005	<0.001
REFRACTIVE INDEX @ 25 DEG C		Inclusive Between 1.3845 - 1.3865	1.3852
WATER (H2O)	%	<= 0.01	0.002
WATER-SOLUBLE TITRABLE ACID	mEq/g	<= 0.0003	0.00005

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.



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A handwritten signature in black ink that reads "Julian Burton". The signature is written in a cursive, flowing style.

Julian Burton - Quality Control Manager - Bridgewater

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