

CERTIFICATE of ANALYSIS



Long-chain Fatty Acid Methyl Ester Mixture (Menhaden fish oil)

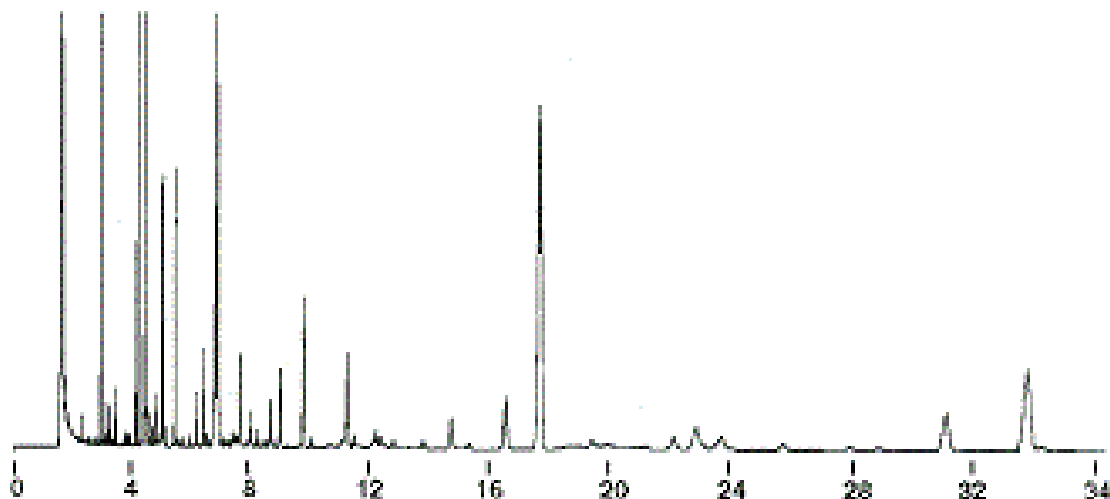
Item No.:	28663
Batch No.:	0705614
Expiry Date:	23SEP2027 (valid from date of certification)
Supplied as:	A mixture of 18 mono-and poly-unsaturated fatty acids and three saturated fatty acids.
Contents:	See table
Volume per Ampule:	Not less than 1 ml. Ampules are overfilled. It is advised that labs use measured volumes.
Storage & Handling:	Store upright and unopened at -20°C. Warm to room temperature prior to opening.

Description

Long-chain Fatty Acid Methyl Ester Mixture (Menhaden fish oil) contains three saturated, four monounsaturated ω -7 and ω -9, and 14 polyunsaturated ω -1, ω -3, ω -4, and ω -6 fatty acid methyl esters (FAMES) isolated from Menhaden fish oil and provided as methyl esters. This mixture is intended for use as a reference standard for the detection of these long-chain fatty acids in various sample types by GC-FID or GC-MS.

Quality Information

Test	Limit	Result	Meets Specification
GC-FID	Conforms to reference chromatogram	Pass	✓



Approval:

Certification Date: 08APR2024

Cayman Chemical certifies that this product meets the specifications stated in this certificate and warrants this product to meet the stated acceptance criteria through the expiry date when stored unopened as recommended.

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Quality Control Table

Elution Order	Item Name
1	Myristic Acid methyl ester
2	Palmitic Acid methyl ester
3	Palmitoleic Acid methyl ester
4	9,12-Hexadecadienoic Acid methyl ester
5	6,9,12-Hexadecatrienoic Acid methyl ester
6	6,9,12,15-Hexadecatetraenoic Acid methyl ester
7	Stearic Acid methyl ester
8	Oleic Acid methyl ester
9	Vaccenic Acid methyl ester
10	Linoleic Acid methyl ester
11	6,9-Octadecadienoic Acid methyl ester
12	γ -Linolenic Acid methyl ester
13	α -Linolenic Acid methyl ester
14	Stearidonic Acid methyl ester
15	11-Eicosenoic Acid methyl ester
16	Arachidonic Acid methyl ester
17	ω -3 Arachidonic Acid methyl ester
18	Eicosapentaenoic Acid methyl ester
19	Heneicosapentaenoic Acid methyl ester
20	Docosapentaenoic Acid methyl ester
21	Docosahexaenoic Acid methyl ester
Column:	Omegawax 250, 30 m x 0.25 mm x 0.25 μ m

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Revision History

Revision No.	Date	Reason for Revision
01	08APR2024	Initial version
02	11MAR2025	Expiry date extension
03	14OCT2025	Expiry date extension
04	07APR2026	Updated description, quality information, and quality control table

Disclaimers

Material Safety Data

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some but not all of the information required for the safe and proper use of this material. Before use, review the complete Material Safety Data Sheet, which has been sent via email to your institution.

Warranty and Limitation of Remedy

Cayman Chemical Company makes no warranty or guarantee of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any obligation or liability, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's exclusive remedy and Cayman's sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman's option, the replacement, at no cost to Buyer, of all material that does not meet our specification.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver of Buyer of all claims hereunder with respect to said material. For further details, please refer to our Warranty and Limitations of Remedy located on our website and in our catalog.

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