

CERTIFICATE of ANALYSIS



Odd-chain Fatty Acid MaxSpec® LC-MS Mixture

Item No.: 19227
Batch No.: 0611238

Expiry Date: 26APR2027 (valid from date of certification)
Supplied as: A solution in ethanol (10 µg/ml of each compound; nominal); in amber ampules

Contents: See table
Volume per Ampule: Not less than 1 ml. Ampules are overfilled. It is advised that labs use measured volumes.

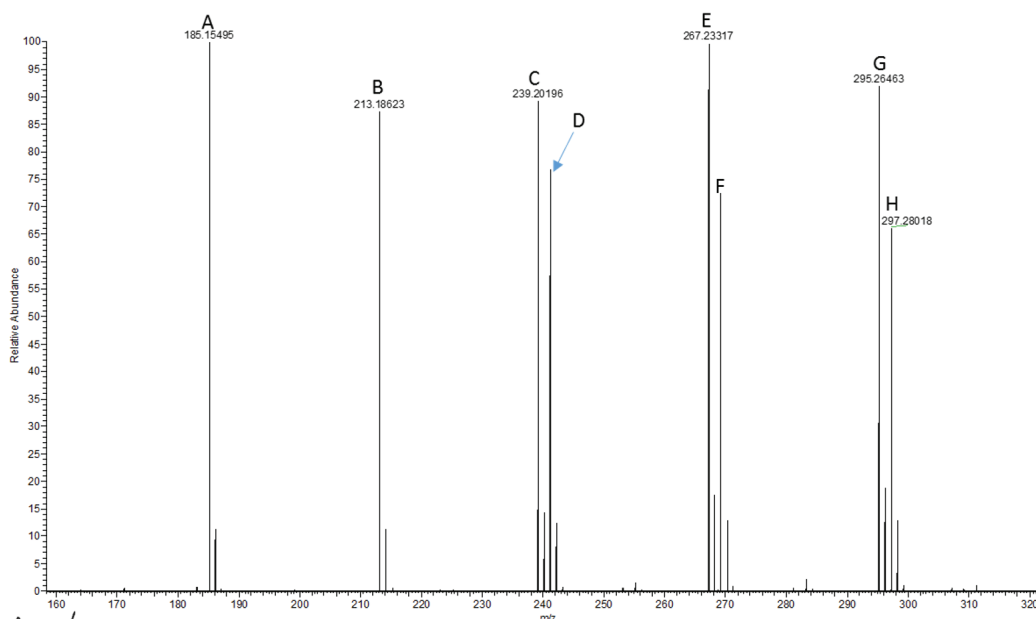
Storage & Handling: Store upright and unopened at -20°C. Warm to room temperature prior to opening.

Description

MaxSpec® LC-MS mixtures are purpose-built for qualitative mass spectrometry applications. This solution has been prepared using gravimetric and volumetric preparation procedures from a combination of neat and formulated pure standards, and is supplied in ampules sealed under argon. Ongoing stability tests are performed to ensure the presence of each analyte throughout the shelf life of the product. Follow recommended storage and handling conditions.

Quality Information

Test	Limit	Result	Meets Specification
Negative ESI-FTMS	Identities confirmed	Pass	✓



Approval: *E. Johnson*

Title: Manager of Analytical Chemistry

Certification Date: 26APR2021

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

Label	Item No.	Item Name	Formula	Calculated [MH] ⁻ (m/z)	Measured [MH] ⁻ (m/z)	Mass Accuracy (ppm)
A	19721	Undecanoic Acid	C ₁₁ H ₂₂ O ₂	185.15470	185.15495	1.350
B	19725	Tridecanoic Acid	C ₁₃ H ₂₆ O ₂	213.18600	213.18623	1.079
C	19724	14-Pentadecenoic Acid	C ₁₅ H ₂₈ O ₂	239.20165	239.20196	1.296
D	17399	Pentadecanoic Acid	C ₁₅ H ₃₀ O ₂	241.21730	241.21753	0.953
E	19748	cis-10-Heptadecenoic Acid	C ₁₇ H ₃₂ O ₂	267.23295	267.23317	0.823
F	19722	Heptadecanoic Acid	C ₁₇ H ₃₄ O ₂	269.24860	269.24874	0.520
G	19749	cis-10-Nonadecenoic Acid	C ₁₉ H ₃₆ O ₂	295.26425	295.26463	1.287
H	19723	Nonadecanoic Acid	C ₁₉ H ₃₈ O ₂	297.27990	297.28018	0.942
Negative ESI-FTMS Analysis on a Q-Exactive Plus Quadrupole-Orbitrap Mass Spectrometer (Thermo Scientific)						
Mass Range: 160-320 m/z		Mass Resolution: 140,000			Injection Volume: 10 μl	
Flow Injection Analysis in 1:1 Methanol:Water with 5 mM Ammonium Acetate at 60 μl/min						

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Revision History

Revision No.	Date	Reason for Revision
01	26APR2021	Initial version
02	28APR2023	Updated format, product name, and added graph
03	26MAR2026	Expiry date extension

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.

This Certificate shall not be reproduced except in full, without written approval from the Cayman Chemical Company.

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