

Certificate of Analysis

Product Name:	D₃ 1.0 miu/gm MCT Oil
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TEST	METHOD	STANDARD	RESULT
Assay Vitamin D ₃ , IU/gm	J. Chromatogr. A870(2000)207-15 & Dionex Tech Note 89	1,000,000	1,080,000
Acid Value Mg KOH/gm	AOCS Ca 5a-40 AOAC 983.23	<2.0	1.06
Micro			
Aerobic Plate Count, cfu/g	USP<2021>	<1,000	<10
Coliforms, cfu/g	USP<2021>	<100	<10
Yeasts & molds, cfu/g	USP<2021>	<100	<10
E. coli, cfu/g	USP<2022>	Negative (<10)	ABSENT
Staphylococcus aureus, cfu/g	USP<2022>	Negative (<10)	ABSENT
Salmonella, cfu/g	USP<2022>	Negative	ABSENT
Heavy Metals			
Arsenic, ppm	AOAC 993.14	<1.5	ND
Cadmium, ppm	AOAC 993.14	<0.3	ND
Lead, ppm	AOAC 993.14	<1.0	ND
Mercury, ppm	DMA	<0.2	0.001

* Indicates an estimate due to low plate counts

CERTIFICATE OF ANALYSIS

Test	Specification	Reference Method	Results
Appearance	Clear, pale yellow oil solution	Visual	Clear, pale yellow oil solution
Identification	To match MK-7 reference standard profile	HPLC/USP38-NF33 MK-7 Preparation	Conforms
Total all-trans vitamin K2 MK-7	>5.00 %	HPLC/USP38-NF33 MK-7 preparation	5.12 %
Lead (Pb)	<3.0 µg/g	ICP-MS/ICP-OES, USP 233 or equivalent	<0.02 µg/g
Cadmium (Cd)	<1.0 µg/g	ICP-MS/ICP-OES, USP 233 or equivalent	<0.004 µg/g
Mercury (Hg)	<0.1 µg/g	ICP-MS/ICP-OES, USP 233 or equivalent	<0.01 µg/g
Arsenic (As)	<2.0 µg/g	ICP-MS/ICP-OES, USP 233 or equivalent	<0.01 µg/g
Total plate count	<10 ³ cfu/g	USP 2021/Ph. Eur. 2.6.12 or equivalent	<10 cfu/g
Total Moulds and yeasts	<10 ² cfu/g	USP 2021/Ph. Eur. 2.6.12 or equivalent	<10 cfu/g
<i>E. coli</i>	Absent in 1 g	USP 2022/Ph. Eur. 2.6.13 or equivalent	Absent in 1 g
<i>Staphylococcus aureus</i>	Absent in 1 g	USP 2022/Ph. Eur. 2.6.13 or equivalent	Absent in 1 g
<i>Salmonella sp.</i>	Absent in 10 g	USP 2022/Ph. Eur. 2.6.13 or equivalent	Absent in 10 g
Bile-tolerant gram-negative bacteria*	≤10 ² cfu/g	USP <62> or equivalent	<10 cfu/g

*includes members of the family Enterobacteriaceae, Pseudomonads and Aeromonas

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Konformitätsbescheinigung

Firma: Sunday Natural Products GmbH
Potsdamer Str. 81c, 10785 Berlin

Produkt: Vitamin D3 + K2 MK7 1000 IE + 50µg all trans 300 Tropfen VEGAN (SKU 3957)
Batch Nr. L01901
Prüfbericht **19014441-003b ersetzt 19014441-003**

Der auf der Flasche angegebene Gesamtgehalt an Vitamin D3 wird ausweislich des Ergebnisses der durchgeführten Untersuchung im Rahmen der Messunsicherheit der Methodik zum Zeitpunkt der Analyse eingehalten.

Hamburg, den 16.04.2019



i. A. L. Kühn

(Staatl. gepr. Lebensmittelchemiker / Kundenbetreuung)

CoA K2 content in Sunday- Vitamin K2 drops

Objective: Analysis of K2 (all-*trans* MK-7) content and isomeric purity

Date of analysis: 25.03.2019

Analysis Method: USP41 Menaquinone-7; Content of Menaquinone-7 Method2
 The amount of K2 (MK-7) in the material is determined by HPLC (qualified instrument Agilent 1260), with UV detection at 268 nm, using external standard calibration method. MK-7 is released from the matrix by adding THF and EtOH to the product (drops).

USP41 Menaquinone-7; Isomeric purity
 Determination of MK-7 isomeric purity by HPLC. The all-*trans* MK-7 isomer is quantified as % area of the total MK-7 peak area in the chromatogram.

Sample/Result:

Sample		
Marketer	Sunday	
Product name	Vitamin D3 + K2 MK7 1000 IE + 50µg all trans 300 Tropfen	
Batch no.	3957 (L01901)	
Analysis	Label claim K2 (all- <i>trans</i> MK-7/item)	Result
K2 (all- <i>trans</i> MK-7) content	50 µg/drop	Complies

Drop weight of 28 mg/drop used in the calculation (provided by manufacturer)

The investigation has shown that the product Vitamin D3 + K2 MK7 1000 IE + 50µg all trans 300 Tropfen/batch 3957 (L01901), with respect to content of vitamin K2 MK-7 all-*trans*, meets the product specifications given on the label.

Prepared by:

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 Solveig Nordstrand/08.05.2019
 Senior Research Scientist