

# CERTIFICATE OF ANALYSIS

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

\*includes members of the family Enterobacteriaceae, Pseudomonads and Aeromonas

# Certificate of Analysis

Details:	Plant-source Vitamin D3 (Cholecalciferol) 1,000,000iu/g Oil.
Suitable for Vegetarians:	Yes
Suitable for Vegans:	Yes

Test	Specification	Result
<b>Appearance:</b>	Transparent oily liquid	Conforms
<b>Colour:</b>	Yellow	Conforms
<b>Odour:</b>	Characteristic	Conforms
<b>Identification:</b>	Positive	Conforms
<b>Peroxide Value:</b>	< 10 Meq/kg	1.3 Meq/Kg
<b>Assay:</b>	900,000 iu/g – 1,100,000 iu/g	1,005,245iu /g
<b>Heavy Metals:</b>	Max. 3 ppm	0.1 ppm
<b>Lead (Pb):</b>	Max. 0.5 ppm	0.01 ppm
<b>Cadmium (Cd):</b>	Max. 0.1 ppm	0.01 ppm
<b>Arsenic (As):</b>	Max. 0.5 ppm	0.01 ppm
<b>Mercury (Hg):</b>	Max. 0.1 ppm	<0.01 ppm
<b>Chromium (Cr):</b>	Max. 0.1 ppm	<0.01 ppm
<b>Total Viable Count (TVC):</b>	Max.3,000 cfu/g	<10cfu/g
<b>Yeasts &amp; moulds:</b>	Max. 300 cfu/g	<10cfu/g
<b>E.Coli:</b>	Negative	Conforms
<b>Salmonella:</b>	Negative	Conforms
<b>Staphylococcus Aureus:</b>	Negative	Conforms
<b>Coliforms:</b>	Negative	Conforms
<b>GMO Status:</b>	Non-GMO	Non-GMO
<b>Irradiation Status:</b>	Non-irradiated	Non-irradiated
<b>TSE/BSE Status:</b>	TSE/BSE free	TSE/BSE free

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16.04.2019

## 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 3958)  
Batch Nr. L01901  
Prüfbericht **19014441-002b ersetzt 19014441-002**

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 VEGAN	
Batch no.	3958 (L01901)	
Analysis	Label claim K2 (all-trans MK-7/item)	Result
K2 (all-trans 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 VEGAN/batch 3958 (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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