

# CERTIFICATE OF ANALYSIS

# K2VITAL®

## K2VITAL® DELTA POWDER

BA-DELTA-17-29/LOT No.:0018022197

Document ID: CDA-DEL-201-02  
Version No: 03  
Verified: 11.10.17/MSU  
Validity: 3 years  
Approved: 11.10.17/TKH  
Reference: 01

**Product Number:** KB 2-020-01 (for 1 kg bags); KB 2-020-05 (for 5 kg bags)  
**Product Description:** Microencapsulated vitamin K2 all-trans MK-7  
**Date of Production:** October 2017  
**Expiry Date:** October 2020  
**Production Site:** BASF AS, Malmparken 5, 2750 Ballerup, Denmark **Country of Origin:** Denmark  
**Storage:** Room temperature, protected from light, excessive heat and moisture in unopened original bags  
**Packaging:** 1 kg or 5 kg in aluminium foil bags

Test	Specification	Method	Result
Appearance	White to light yellow fine powder	Visual	White to light yellow fine powder
Through Mesh 20 USP (%)	>99.5%	Sieving	100.0 %
Through Mesh 40 USP (%)	>85 %	Sieving	98 %
Through Mesh 100 USP (%)	<20 %	Sieving	5 %
Loss on Drying	≤5 %	Gravimetric	5 %
Total all-trans K2 MK-7	≥0.200% or ≥2000 ppm	HPLC	2087 ppm
Total heavy metals	Max. 10 mg/kg	ICP-MS or ICP-OES	Max. 10 mg/kg
Lead (Pb)	Max. 2 mg/kg	ICP-MS or ICP-OES	Max. 2 mg/kg
Cadmium (Cd)	Max. 1 mg/kg	ICP-MS or ICP-OES	Max. 1 mg/kg
Mercury (Hg)	Max. 0.1 mg/kg	ICP-MS or ICP-OES	Max. 0.1 mg/kg
Arsenic (As)	Max. 1 mg/kg	ICP-MS or ICP-OES	Max. 1 mg/kg
Total aerobic microbial count (TAMC)	Max. 1000 cfu/g	Ph.Eur./USP	100 cfu/g
Total yeasts and mould (TYMC)	Max. 100 cfu/g	Ph.Eur./USP	Max. 100 cfu/g
<i>E. coli</i>	Absent in 10 g	Ph.Eur./USP	Absent in 10 g
<i>Staphylococcus aureus</i>	Absent in 10 g	Ph.Eur./USP	Absent in 10 g
<i>Salmonella sp.</i>	Absent in 25 g	ISO 6579	Absent in 25 g
<i>Pseudomonas aeruginosa</i>	Absent in 10 g	Ph.Eur./USP	Absent in 10 g
<i>Enterobacteria</i>	Absent in 1 g	ISO 21528	Absent in 1 g

Anne Kristin  
Bakkestuen

Digitally signed by Anne Kristin  
Bakkestuen  
Date: 2018.01.04 13:46:12 +01'00'

Anne Kristin Bakkestuen/04.01.2018

Research scientist/QC