



## K2VITAL® 1% DELTA Powder

Document ID	MSDS-DEL-511
Version No.:03	Validity:3 years
Verified:12.05.20/MSU	Approved:15.05.20/FSE

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

**Product name**

K2VITAL® 1% DELTA® Powder (microencapsulated vitamin K2 MK-7)

**Product number**

KB 2-100-01 (1 kg pack size)

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Relevant identified uses:**

Food supplement/Dietary supplement ingredient

#### 1.3. Details of the supplier of the safety data sheet

**Manufacturer**

 Kappa Bioscience AS  
 Silurveien 2B  
 0380 Oslo  
 Norway

**Telephone:** +47 21 08 06 80

**Supplier**

 Kappa Ingredients GmbH  
 Friesenweg 4, Building 13  
 22763 Hamburg  
 Germany

**Telephone:** +49 40 6094087 - 0

**Telefax:** +49 40 6094087 - 99

**Information contact**

Kappa Ingredients GmbH

**Information telephone:** +49 40 6094087 - 0

**Information telefax:** +49 40 6094087 - 99

**E-mail (competent person):** qa@kappabio.com

**Website:** https://www.kappabio.com

#### 1.4. Emergency telephone number

Poison Control Center, Oslo, Norway

**Telephone:** +47 22 59 13 00

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008: -

#### 2.2. Label elements

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**
**Hazard pictograms:** -

**Signal word:** -

**Hazard statements:** -

**Precautionary statements:** -

## K2VITAL® 1% DELTA Powder

Document ID	MSDS-DEL-511
Version No.:03	Validity:3 years
Verified:12.05.20/MSU	Approved:15.05.20/FSE

### Hazardous component(s) for labelling:

None

### Special labelling of particular preparations:

None

### 2.3. Other hazards

The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP]. A repeated, excessive dust exposure can cause pneumoconiosis. May form explosive dust-air mixture if dispersed.

## SECTION 3: Composition / information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

The mixture consists of components that are not classified according to Regulation (EC) No. 1272/2008 [CLP].

(Full text of H- and EUH-phrases: see section 16.)

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

<b>General information:</b>	Remove contaminated clothing.
<b>Following inhalation:</b>	Keep patient calm, remove to fresh air.
<b>Following skin contact:</b>	Wash thoroughly with soap and water.
<b>After eye contact:</b>	Wash affected eyes for at least 15 minutes under running water with eyelids held open.
<b>After ingestion:</b>	Rinse mouth and then drink 200-300 ml of water.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms: No significant reaction of the human body to the product known.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treatment: Symptomatic treatment (decontamination, vital functions).

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

<b>Suitable extinguishing media:</b>	Water spray, foam, dry powder, carbon dioxide (CO2).
<b>Unsuitable extinguishing media:</b>	Water jet.

### 5.2. Special hazards arising from the substance or mixture

Harmful vapours, carbon oxides.

## K2VITAL® 1% DELTA Powder

Document ID	MSDS-DEL-511
Version No.:03	Validity:3 years
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The substances/groups of substances mentioned can be released in case of fire. Burning produces harmful and toxic fumes. Dust explosion hazard.

### 5.3. Advice for firefighters

#### Special protective equipment for firefighters:

In case of fire: Wear self-contained breathing apparatus.

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Cool endangered containers with water-spray.

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## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Information regarding personal protective measures see, section 8. Avoid dust formation.

### 6.2. Environmental precautions

Do not discharge into drains/surface waters/groundwater.

### 6.3. Methods and material for containment and cleaning up

For small amounts: Pick up with suitable appliance and dispose of.

For large amounts: Contain with dust binding material and dispose of.

Dispose of absorbed material in accordance with regulations. Avoid raising dust.

### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advices on safe handling

Avoid dust formation. Provide exhaust ventilation if dust is formed.

#### Protection against fire and explosion:

The product is capable of dust explosion. Avoid dust formation. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Use explosion-proof apparatus and fittings.

### 7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed and dry.

### 7.3. Specific end use(s)



## K2VITAL® 1% DELTA Powder

Document ID	MSDS-DEL-511
Version No.:03	Validity:3 years
Verified:12.05.20/MSU	Approved:15.05.20/FSE

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Components with occupational exposure limits

57-50-1: Sucrose  
9005-25-8: Starch

#### 8.2. Exposure controls

##### Personal protective equipment

##### Respiratory protection

Breathing protection if breathable aerosols/dust are formed. Particle filter with low efficiency for solid particles (eg. EN 143 or 149, Type P1 or FFP1)

##### Hand protection

Chemical resistant protective gloves (EN 374)

##### Eye protection

Safety glasses with side-shields (frame goggles) (eg. EN 166)

##### Body protection

Chemical protection overall (eg. according to EN 13982) if dust is formed

##### General safety and hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended. Hands and/or face should be washed before breaks and at the end of the shift.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

##### Appearance:

**Physical state:** Powder  
**Colour:** Almost white  
**Odour:** Faint odour  
**Odour threshold:** Not determined

#### Safety relevant basis data

## K2VITAL® 1% DELTA Powder

Document ID	MSDS-DEL-511
Version No.:03	Validity:3 years
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Parameter	Value	Unit	Remark
pH:	6		
Melting point/freezing point:			Not determined (The substance /product decomposes)
Initial boiling point and boiling range:			Not determined (The substance /product decomposes)
Flash point:			Testing can be waived because substance is a solid
Evaporation rate:			Non-volatile content
Flammability (solid, gas):			Not highly flammable (UN Test N.1 combustible solids)
Explosive properties:			Not determined
Lower flammability or explosion limits:			Not applicable
Upper flammability or explosion limits:			Not applicable
Vapour pressure:			Negligible
Vapour density:			Non-volatile solid
Relative density:			Not determined
Density:			Not determined
Solubility(ies):	Water		Dispersible
Partition coefficient: n-octanol/water:			Not applicable
Auto-ignition temperature:			Not determined
Decomposition temperature:	Thermal		>150 °C No decomposition if stored and handled as prescribed/indicated.
Viscosity:			Not applicable (the product is a solid)
Explosion hazard			The product is not explosive, however a dust explosion could result from an air/dust mixture
Fire promoting properties			Not fire-propogating
<b>9.2. Other information</b>			
Bulk density:	500-600	kg/m <sup>3</sup> (20 °C)	
Fat solubility:			Not determined
Solvent separation test:			Not applicable
Solvent content:			Not applicable
Minimum ignition energy:			The product is capable of dust explosion
Hygroscopy			Non-hygroscopic

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity



## K2VITAL® 1% DELTA Powder

Document ID	MSDS-DEL-511
Version No.:03	Validity:3 years
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No hazardous reactions if stored and handled as prescribed/indicated.  
No corrosive effect on metal.

### 10.2. Chemical stability

The product is stable if stored and handled as prescribed/indicated.

### 10.3. Possibility of hazardous reactions

Dust explosion hazard.

### 10.4. Conditions to avoid

Avoid electro-static charge. Avoid all sources of ignition: heat, sparks, open flame. Avoid dust formation.

### 10.5. Incompatible materials

Substances to avoid:

None known during use and storage if used according to instructions

### 10.6. Hazardous decomposition products

No hazardous decomposition products if stored and handled as prescribed/indicated.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic after a single ingestion

ATE (oral): >5000 mg/kg

NOEC (oral, rat): 2000 mg/kg

NOAEL (oral, rat, 90 days): 10 mg/kg/d

#### Acute toxicity

Substance:	CAS-No.:	Toxicological information
-	-	-

#### Skin corrosion/irritation

Not an irritant.

#### Serious eye damage/irritation

Not an irritant.

#### Respiratory or skin sensitisation

Assessment of sensitization:

A sensitizing effect on particularly sensitive individuals cannot be excluded.

## K2VITAL® 1% DELTA Powder

Document ID	MSDS-DEL-511
Version No.:03	Validity:3 years
Verified:12.05.20/MSU	Approved:15.05.20/FSE

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)****Carcinogenicity**

The whole of the information assessable provides no indication of a carcinogenic effect.

**Germ cell mutagenicity**

Based on the ingredients, there is no suspicion of a mutagenic effect.

**Reproductive toxicity**

Based on available Data, the classification criteria are not met.

**Specific Target Organ Toxicity (STOT) - single exposure**

Remarks: Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Remarks: Based on available data, the classification criteria are not met.

**Aspiration hazard**

Slightly irritant but not relevant for classification.

**SECTION 12: Ecological information****12.1. Toxicity**

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms.

**Ecotoxicity**

Substance:	CAS-No.:	Ecotoxicity
-	-	-

**12.2. Persistence and degradability**

Assessment biodegradation and elimination (H2O):

The organic component of the product is biodegradable

**12.3. Bioaccumulative potential**

Assessment bioaccumulation potential:

The product has not been tested. Discharge into the environment must be avoided.

**12.4. Mobility in soil**

Assessment transport between environmental compartments:

Adsorption in soil: not determined.

**12.5. Results of PBT and vPvB assessment**

The product has not been tested. Discharge into the environment must be avoided.



## K2VITAL® 1% DELTA Powder

Document ID	MSDS-DEL-511
Version No.:03	Validity:3 years
Verified:12.05.20/MSU	Approved:15.05.20/FSE

### 12.6. Other adverse effects

The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

Additional information

Other ecotoxicological advice:

The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual components

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Observe national and local legal requirements.

##### Appropriate disposal/Product:

May be disposed of in household waste landfill.

##### Appropriate disposal / Package:

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

##### List of proposed waste codes/waste designations in accordance with EWC

According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

##### Waste code product:

**Waste code packaging:** 15 01 06 - mixed packaging

### SECTION 14: Transport information

#### 14.1. UN number

**UN No.:** None

#### 14.2. UN proper shipping name

##### ADR / RID

Not classified as a dangerous good under transport regulations.

##### IMDG / ICAO-TI / IATA-DGR

Not classified as a dangerous good under transport regulations.

#### 14.3. Transport hazard class(es)

**Hazard label(s):** None

**Classification Code:** None





## K2VITAL® 1% DELTA Powder

Document ID	MSDS-DEL-511
Version No.:03	Validity:3 years
Verified:12.05.20/MSU	Approved:15.05.20/FSE

### 14.4. Packing group

Packing Group: None

### 14.5. Environmental hazards

Labelling environmentally hazardous substances

ADR/RID / IMDG-Code / ICAO-TI / IATA-DGR:

yes /  no

Marine Pollutant:

yes /  no

### 14.6. Special precautions for user

Land transport (ADR/RID)

Transport category: None

Special provisions: None

Tunnel restriction code: None

Limited quantity (LQ): None

Sea transport (IMDG)

EmS-No: None

Special provisions: None

Limited quantity (LQ): None

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Remark: None

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU legislation

**Regulation (EC) No 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register:**

Substance / mixture / product / ingredients not listed

**Regulation (EC) No 1005/2009 on substance that deplete the ozone layer:**

Substance / mixture / product / ingredients not listed

**Regulation (EC) No 648/2004 on detergents:**

Substance / mixture / product / ingredients not listed

**Regulation (EC) No 850/2004 on persistent organic pollutants:**

Substance / mixture / product / ingredients not listed

**Regulation (EU) No 649/2012 concerning the export and import of dangerous chemicals:**

Substance / mixture / product / ingredients not listed

**Restrictions according to Title VIII of Regulation (EC) No 1907/2006:**

Substance / mixture / product / ingredients not listed

#### National regulations

Observe in addition any national regulations.



## K2VITAL® 1% DELTA Powder

Document ID	MSDS-DEL-511
Version No.:03	Validity:3 years
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### Other regulations, restrictions and prohibition regulations

K2VITAL® MK-7 is self-affirmed generally recognized as safe (sGRAS) in accordance with the United States Food and Drug Regulations. It is approved as novel food as per EU regulations. It is approved as complimentary medicine as per Therapeutic Goods Administration (TGA) Australia.

### 15.2. Chemical Safety Assessment

#### Chemical safety assessment for this substance:

For this substance a chemical safety assessment has not been carried out.

### SECTION 16: Other information

#### Relevant H- and EUH-phrases (Number and full text)

##### Hazard statements

None

##### Training advice

None

##### Recommended restrictions of use

Refer to section 1.

##### Further information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

##### Documentation of changes

None

##### Key literature references and sources for data

Data arise from reference works and literature.

##### Abbreviations and acronyms

None

Version	Change	Date/Initials
02	Use of change log started  Updated name in the header – removed trademark sign of DELTA  Updated address of Kappa Ingredients	02.09.2019/MSU



## K2VITAL® 1% DELTA Powder

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Version No.:03	Validity:3 years
Verified:12.05.20/MSU	Approved:15.05.20/FSE

03	Deleted 5kg pack size	11.05.2020/LWI
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