



## Certificate of Analysis

Product: Vitamin E Synthetic  
Batch Number: Best 4446201  
Before End: September 2024

Test	Analysis	Specification
Description	Clear colourless slightly green/yellowish oil EP/USP/FCC	Clear colourless slightly green/yellowish oil EP/USP/FCC
Optical Rotation	0°	(-0.01 - +0.01 EP)
IR	Conforms	To conform EP/USP/FCC
Colour Reaction	Conforms	To conform USP/FCC
Retention Time, GC	Conforms	To conform USP/FCC
Impurity A	<0.1%	≤ 0.5% EP
Impurity B	0.63%	≤ 1.5% EP
Impurity C	<0.1%	≤ 0.5% EP
Impurity D and E	<0.1%	≤ 1.0% EP
Any Other Impurities	<0.1%	≤ 0.25% EP
Total Impurities	0.63%	≤ 2.5% EP
Acidity	0.07	≤ 1.0ml, USP/FCC
Residual Solvents	Conforms	≤ 0.5% In-house
Heavy Metals	<0.5mg/kg (BLD)	≤ 2mg/kg, FCC
Arsenic	<1mg/kg	≤ 1mg/kg In-house
Copper	<2mg/kg (BLD)	≤ 25mg/kg In-house
Zinc	<2mg/kg (BLD)	≤ 25mg/kg In-house
Assay	98.40%	96.5% - 102.0% EP
	98.40%	96.0% - 102.0% USP/FCC
Total Aerobic Microbial Count	<10cfu/g	≤ 1000cfu/g EP/USP
Total Yeast and Mould Count	<10cfu/g	≤ 100cfu/g EP/USP
Escherichia coli	n.d./g EP/USP	n.d
Salmonella	n.d./g EP/USP	n.d
Pseudomonas Aeruginosa	n.d./g EP/USP	n.d
Staphylococcus Aureus	n.d./g EP/USP	n.d
Bile-Tolerant Gram-Negative Bacteria	n.d./g EP/USP	n.d



## Product Information

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### Allergen Statement

**NK Chemicals Product Name:**      **Vitamin E Synthetic**

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We hereby certify that to the best of our knowledge, our product DL-alpha Tocopheryl Acetate does not contain any allergen as declared in the Directive 2007/68/EC and US Food Allergen Labelling and Consumer Protection Act of 2004 (FALCPA.)

This product does not contain any of the following allergenic substances:

Cereals containing gluten and products thereof

Crustaceans and products thereof

Eggs and products thereof

Fish and products thereof

Peanuts and products thereof

Soybeans and products thereof

Milk and milk products thereof (incl. lactose)

Nuts and products thereof

Celery and products thereof

Mustard and products thereof

Sesame seeds and products thereof

Sulphur dioxide and sulphites at concentrations of at least 10 mg/kg or 10mg/litre expressed as SO<sub>2</sub>

Lupin and products thereof

Molluscs and products thereof

**This is an electronically generated document and is valid without a signature**

**25<sup>th</sup> February 2021**



## Product Information

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### COMPOSITION DECLARATION

**Product Name:** Vitamin E Synthetic

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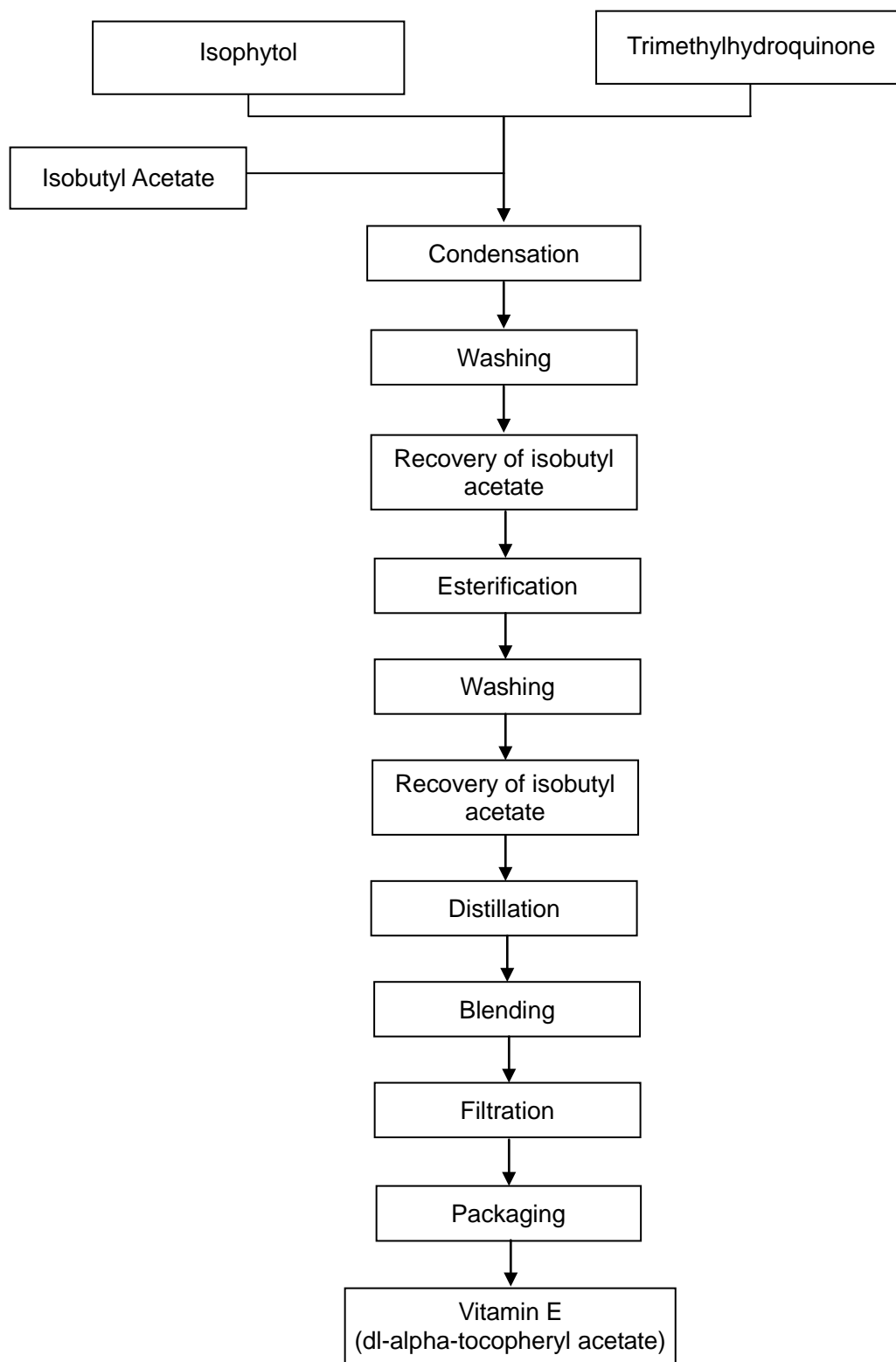
Ingredients	Composition
1 DL-alpha-Tocopheryl Acetate	100.0%**

\*The data is based on average.

\*\* No excipients are added to this product.

## Flow Chart

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## **Product Information**

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### **Vitamin E Synthetic**

We hereby declare that the above mentioned material does not contain, to the best of our knowledge, any material derived from GM sources.

For Barentz UK Ltd

09/07/2021

**Vitamin E Synthetic****Section 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product Identifier**

**Product name:** Vitamin E Synthetic  
**CAS number:** 7695-91-2  
**EINECS number:** 231-710-0  
**INCI Name:** Tocopheryl Acetate

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

**Use of substance / mixture:** Used as a nutrient/Cosmetics

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

**Supplier Name:** Madar Corporation Limited  
**Supplier Address:** 19 - 20 Sandleheath Industrial Estate  
Fordingbridge  
SP6 1PA  
United Kingdom

**Supplier Telephone:** +44 (0)1425 655 555  
**Email:** [technical@madarcorporation.co.uk](mailto:technical@madarcorporation.co.uk)

**1.4. Emergency telephone number**

**Telephone:** +44 (0)1924 844820 (office hours only)

**Section 2: Hazards Identification****2.1. Classification of the substance or mixture**

No particular hazards known

**2.2. Label elements**

No particular hazards known

**2.3. Other hazards**

**PBT:** This substance is not identified as a PBT substance

**Section 3: Composition/information on ingredients****3.1. Substances**

**Vitamin E Synthetic****Chemical identity:** Vitamin E Synthetic**Section 4: First aid measures****4.1. Description of first aid measures**

**Skin contact:** Remove all contaminated clothes and footwear immediately. Wash immediately with plenty of soap and water.

**Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.

**Ingestion:** Rinse mouth and then drink plenty of water

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so.

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

In some cases of exposure, the following symptoms may be observed:

**Skin contact:** Not applicable

**Eye contact:** Not applicable

**Ingestion:** Not applicable

**Inhalation:** Not applicable

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

**Skin contact:** Not applicable

**Eye contact:** Not applicable

**Ingestion:** Not applicable.

**Inhalation:** Not applicable

**Section 5: Fire-fighting measures****5.1. Extinguishing media**

**Extinguishing media:** Water, Carbon Dioxide, Foam, Dry extinguishing media

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

**Exposure hazards:** No particular hazards known

**5.3. Advice for fire-fighters**

**Advice for fire-fighters:** Wear a self-contained breathing apparatus

**Section 6: Accidental release measures**

## Vitamin E Synthetic

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

**Personal precautions:** Refer to section 8 of SDS for personal protection details.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers.

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

**Clean-up procedures:** Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations.

### 6.4. Reference to other sections

Not applicable

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Apply good manufacturing practice & industrial hygiene practices, ensuring proper ventilation. Observe good personal hygiene, and do not eat, drink or smoke whilst handling

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

**Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed.  
**Suitable packaging:** Must only be kept in original packaging.

### 7.3. Specific end use(s)

Not applicable

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

**Workplace exposure limits:** Not applicable.

### 8.2. Exposure controls



## Vitamin E Synthetic

**Engineering measures:** Ensure there is sufficient ventilation of the area.  
**Respiratory protection:** Self-contained breathing apparatus must be available in case of emergency.  
**Hand protection:** Protective gloves.  
**Eye protection:** Safety goggles.  
**Skin protection:** Protective clothing with elasticated cuffs and closed neck.

### Section 9: Physical and chemical properties

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

**State:** Liquid  
**Colour:** Pale yellow /greenish oily liquid  
**Odour:** Odourless  
**Solubility in water:** insoluble  
**Soluble in:** freely soluble in acetone, in anhydrous ethanol and in fatty oils  
**Relative Density:** 0.95~0.96 g/cm<sup>3</sup> (approx.20°C)  
**Flash point:** 210 °C ~243 °C  
**Initial Boiling Point:** >300°C  
**Vapor pressure** Approx.1.4 mbar (approx.240°C)  
 Approx.4.0 mbar (approx.270°C)  
**Partition coefficient:** Log Pow 12.26 (n-octanol/water) (calculate at 25 °C)  
**Viscosity:** 6.31-6.59 Pa·s (20 °C)

#### 9.2. Other information

Not applicable

### Section 10: Stability and reactivity

#### 10.1. Reactivity

Not applicable

#### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

Not applicable

#### 10.4. Conditions to avoid

**Conditions to avoid:** Heat and Light

## Vitamin E Synthetic

### 10.5. Incompatible materials

**Incompatible materials:** Alkali, Strong acids, metal salts, oxidising agents.

### 10.6. Hazardous decomposition products

**Haz. decomp. products:** No hazardous decomposition products if handled and stored as indicated.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

#### Toxicity values:

Route	Species	Test	Value	Units
ORL	MOUSE	LD50	> 10,000	mg/kg

### Symptoms / routes of exposure

Not applicable

## Section 12: Ecological information

### 12.1. Toxicity

Quantitative data on the ecologic effect of this product are not available.

### 12.2. Persistence and degradability

**Persistence and degradability:** Inherently biodegradable

### 12.3. Bioaccumulative potential

Not data available

### 12.4. Mobility in soil

**Mobility:** Dispersible in water.

### 12.5. Results of PBT and vPvB assessment

**PBT identification:** This substance is not identified as a PBT substance.

**Vitamin E Synthetic****12.6. Other adverse effects**

Not applicable

**Section 13: Disposal considerations****13.1. Waste treatment methods**

**Disposal operations:** Must be disposed of in accordance with local and national regulations.  
**Disposal of packaging:** Dispose of as normal industrial waste.  
**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

**Section 14: Transport information****14.1. UN number****UN number:** Not classified for transport**14.2. UN proper shipping name****UN proper shipping name:** Not applicable.**14.3. Transport hazard class(es)****Transport hazard class:** Not applicable.**14.4. Packing group****Packing group:** Not applicable.**14.5. Environmental hazards****Environmental hazards:** Not classified as environmentally hazardous according to UN Model Regulations (IMDG, ADR, RID and ADN)**14.6. Special precautions for user****Disposal operations:** Must be disposed of in accordance with local and national regulations.**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC code****Transport in bulk:** Product will not be transported in bulk**Section 15: Regulatory information**

**Vitamin E Synthetic****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Not applicable

**15.2. Chemical Safety Assessment**

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

**Section 16: Other information****Other information**

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

## Vitamin E Synthetic

**INCI Name:** DL-alpha Tocopheryl Acetate  
**Cas No:** 7695-91-2 / 231-710-0

Tocopheryl Acetate is a viscous liquid, but still fairly easy to handle at room temperature. It is readily soluble in all kind of cosmetic oils. Tocopheryl Acetate is relatively stable to air and heat.

## Specification

Test Parameter	Typical Value
Chemical formula	$C_{31}H_{52}O_3$
Molecular weight	472,7
Characters	clear, colorless to greenish-yellow, viscous oily liquid
Identification	A: specific optical rotation (-0,01° to +0,01°) B: IR absorption spectrophotometry C: TLC test
Acidity	≤2.0 mg KOH/g
Free tocopherol	≤1.0%
Sulphated ashes	≤0.10%
Heavy metal	≤10 mg/kg
Lead	≤2 mg/kg
Arsenic	≤1 mg/kg
Refractive(20°C)	1.494~1.498
Absorbance	42.0~45.0max. at about 284nm 7.5~9.0min. at about 254nm
Density(20°C)	0.952~0.966 g/ml
<b>Assay</b> (Ph. Eur.: 96,5% to 102,0%)	98,0% to 102,0%

## Further Information

## Related substances

impurity A* <sup>1</sup>	not more than 0,5%
impurity B* <sup>2</sup>	not more than 1,5%
impurity C* <sup>3</sup>	not more than 0,5%
impurity D* <sup>4</sup> and E* <sup>5</sup>	not more than 1,0%
any other impurity	not more than 0,25%
total impurities	not more than 2,5%

\*1 all-rac-trans-2,3,4,6,7-pentamethyl-2-(4,8,12-trimethyltridecyl)-2,3-dihydrobenzofuran-5-yl acetate

\*2 all-rac-cis-2,3,4,6,7-pentamethyl-2-(4,8,12-trimethyltridecyl)-2,3-dihydrobenzofuran-5-yl acetate

\*3 all rac-alpha-tocopherol  
\*4 4-methoxy-2,3,6-trimethyl-5-[(all-RS,E)-3,7,11,15-tetramethylhexadec-2-enyl]phenyl acetate

\*5(all-RS,all-E)-2,6,10,14,19,23,27,31-octamethyldotriaconta-12,14,18-triene

## Microbiological data

- Total aerobic microbial count: max. 1000cfu/g
- Total yeast and moulds count: max. 100cfu/g

## Storage and packaging

- Expiry date: In unopened original packaging and under adequate storage conditions minimum 3 years after production date
- Storage condition: Store in tight container at 1°C to 30°C

## REACH

- DL-alpha Tocopheryl Acetate has been registered (reg no: 01-2119457641-38-0002). The final REACH registration considers the uses recommended by COLIPA



## CERTIFICATE

### Product Information

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#### **Product Name: Vitamin E Synthetic**

We hereby declare that, to the best of our knowledge, the above mentioned material supplied by us, is derived from synthetic sources does not contain any ingredients animal derived ingredients.

As such, this should be suitable for use by Vegans.

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**25.01.21**