

## SPECIFICATION

<b>Product name</b>	<b>DL-Alpha-Tocopherol</b>
<b>Product code</b>	<b>YYES04</b>
<b>Production unit</b>	<b>Zhejiang NHU Company</b>
<b>Description</b>	
Ingredients	DL-Alpha tocopherol (E307)
Synonym	tocopherol, Alpha-Tocopherol
Formula	$C_{29}H_{50}O_2$
Molecular weight	430,71 g/mol
CAS No	10191-41-0
EC No	233-466-0
<b>Properties</b>	
Shelf life	24 months after production date, in unopened original packaging
Aspect	Clear, colourless or yellowish-brown, viscous, oily liquid
Assay	96 % to 102 % (JECFA)
Solubility	Practically insoluble in water, freely soluble in acetone, in anhydrous ethanol
Spectrophotometry	In absolute ethanol the $\leq$ imum absorption is about 292 nm
Specific rotation	$[\alpha]_D^{25} 0^\circ \pm 0,05^\circ$ (1 in 10 solution in chloroform)
Specific absorption in ethanol	$E_{1\%}^{1\text{cm}}$ (292 nm): 71,0 - 76,0 (JECFA)
Refractive index (20 °C)	$[n]_D^{20}$ 1,503 – 1,507 (JECFA)
Acid value	$\leq 1,0$ ml of 0,1 N NaOH (JECFA)
Sulphated ash	$\leq 0,1$ % (JECFA)
<b>Heavy metals</b>	
Lead (Pb)	$\leq 0,5$ mg/kg (JECFA)
Arsenic (As)	$\leq 1,0$ mg/kg (JECFA)
Cadmium	$\leq 0,5$ mg/kg (JECFA)
Mercury	$\leq 0,1$ mg/kg (JECFA)



Version: 9.00.0001  
Date: 11.03.2026

## Handling

Usage For food applications

Stability DL-alpha-Tocopherol oxidizes and darkens in air and on exposure to light.

Storage Protect with a blanket of an inert gas. If the container is opened and not used immediately, it is recommended to flush the containers with an inert gas and to use up their contents as quickly as possible.

Transport See latest safety data sheet

The product complies with JECFA and EU Regulation No. 231/2012 of 9<sup>th</sup> March of 2012.  
Classified as **hazardous** as per EU regulation!

## NHU Life Science GmbH





## SPECIFICATION

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**Product code** YYES04  
**Production unit** Zhejiang NHU Company

### Description

**Ingredients** DL-Alpha tocopherol (E307)  
**Synonym** Tocopherol, Alpha-Tocopherol  
**Formula**  $C_{29}H_{50}O_2$   
**Product code** YYES04  
**CAS No** 10191-41-0  
**EC No** 233-466-0

### Properties

**Shelf life** 24 months after production date, in unopened original packaging  
**Aspect** clear, colourless or yellowish-brown, viscous, oily liquid (EP)  
**Assay** 96 % - 102 % (EP/USP)  
**Solubility** practically insoluble in water, freely soluble in acetone, in anhydrous ethanol

**Specific absorption in ethanol**

$E_{1\%}^{1cm}$  (292 nm): 71,0 - 76,0 (EP/ USP)

**Identification A, B, C**

- A: Optical rotation:  $-0.01^\circ$  to  $+0.01^\circ$   
B: Infrared absorption spectrophotometry: Both spectra in the product and the Reference Spectrum exhibit similar intensities of absorption at the same wave numbers. (EP)  
C: Chromatography: The retention time of the major peak for alpha-tocopherol of the Sample solution corresponds to that of the standard solution, as obtained in the assay. (USP)  
TLC: The principal spot in the chromatogram obtained with the test solution is similar in position and size to the principal spot in the chromatogram obtained with the reference solution. (EP)

**Acid value**

$\leq 1,0$  ml of 0,1 N NaOH (USP)



### Related substances (EP)

Impurity A	≤ 0,5 %
Impurity B	≤ 1,5 %
Sum of impurity C + D	≤ 1,0 %
Any other impurities	≤ 0,25 %
Total impurities	≤ 2,5 %

### Handling

Usage For cosmetic applications

Stability DL-alpha-Tocopherol becomes darker in colour as soon as it is exposed to air and light.

Storage Protect with a blanket of an inert gas. If the container is opened and not used immediately, it is recommended to flush the containers with an inert gas and to use up their contents as quickly as possible.

Transport See latest safety data sheet

The product complies with EP, USP.

Classified as **hazardous** as per EU regulation!

### NHU Life Science GmbH