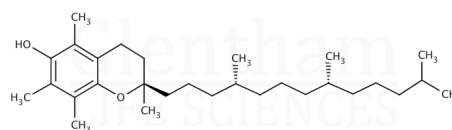


Certificate of Analysis

Product Name DL-alpha-Tocopherol
Glentham Code GP5981
CAS Number 10191-41-0
EINECS 233-466-0
MDL Number MFCD00006848
Additional CAS 2074-53-5
Additional CAS 1406-18-4
PubChem SID 310272467
Batch Number 223MUH



Molecular Weight 430.72
Molecular Formula $C_{29}H_{50}O_2$
Storage Temp. +4°C

Property	Specification	Batch 223MUH
Physical Description	Pale yellow to brown, clear viscous liquid	Brown, clear viscous liquid
Identification	According to EP, USP	Conforms
Specific Optical Rotation	-0.01 - +0.01 °	0.00°
Sulphated Ash	≤ 0.1%	Conforms
Acidity	≤ 1.0ml	Conforms
Heavy Metals (as Pb)	≤ 10ppm	Conforms
Lead (Pb)	≤ 2ppm	≤ 0.5ppm
Arsenic (As)	≤ 1ppm	Conforms
Cadmium (Cd)	≤ 1ppm	≤ 0.5ppm
Mercury (Hg)	≤ 0.1ppm	Conforms
Zinc (Zn)	≤ 10ppm	Conforms
Related Substances	Impurity A: ≤ 0.5%	≤ 0.1%
	Impurity B: ≤ 1.5%	0.2
	Impurity C + D: ≤ 1.0%	0.2
	Any Other Impurity: ≤ 0.25%	≤ 0.25%
	Total Impurities: ≤ 2.5%	0.5
Assay	96.0 - 102.0 % (USP)	99.0%
Assay	96.0 - 102.0 % (EP)	98.9%
Pharmacopoeia Specification(s)	EP, USP	Conforms

Specification Version v1.1
Manufacture Date 2023-05-22
Re-Test Date 2033-02-16

Glentham Life Sciences confirm that the above referenced product conformed to the information displayed in this document on the quality release date. Please check www.glentham.com or contact us using the details above for the current version of this document.

This document was generated electronically and is therefore valid without signature. © Glentham Life Sciences Ltd, 2025