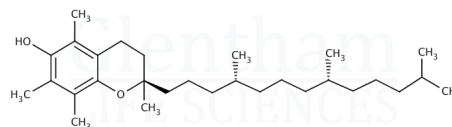


Certificate of Analysis

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 456HSN



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

Property	Specification	Batch 456HSN
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%	≤ 0.1%
Acidity	≤ 1.0ml	≤ 1.0ml
Heavy Metals (as Pb)	≤ 10ppm	≤ 10ppm
Lead (Pb)	≤ 2ppm	≤ 0.5ppm
Arsenic (As)	≤ 1ppm	≤ 1ppm
Cadmium (Cd)	≤ 1ppm	≤ 0.5ppm
Mercury (Hg)	≤ 0.1ppm	≤ 0.1ppm
Zinc (Zn)	≤ 10ppm	≤ 10ppm
Related Substances	Impurity A: ≤ 1.0%	≤ 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 v1.0
Manufacture Date 2023-05-22
Re-Test Date 2023-02-16

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.

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