

## CERTIFICATE OF ANALYSIS

<b>Product Name</b>	Tocopherols T-50
<b>Product Code</b>	AL00125
<b>INCI Name</b>	Tocopherol mix.
<b>CAS Number</b>	59-02-9, 16698-35-4, 54-28-4, 119-13-1, 1406-66-2
<b>Lot Number</b>	VM50240205
<b>Manufacture Date</b>	05/2024
<b>Re-test Date</b>	05/2026

Items	Specification	Results
Color	Pale yellow to brownish red	Conforms
Odor	Nearly odorless	Conforms
Appearance	Clear oily liquid	Conforms
Chemical Reaction	Positive	Conforms
GC	Corresponds to RS	Conforms
Acidity	≤ 1.0mL	0.27mL
Optical Rotation	≥ +20°	+21.2°
Total tocopherols	≥ 50.0%	50.44%
D-alpha tocopherol	< 20.0%	17.46%
D-beta tocopherol	< 10.0%	1.72%
D-gamma tocopherol	50.0 ~ 70.0%	64.57%
D-delta tocopherol	10.0 ~ 30.0%	16.25%
The percentage of d-(beta+gamma+delta) tocopherols	≥ 80.0%	82.54%
Lead	≤ 1.0ppm [GF-AAS]	Certified
Arsenic	≤ 1.0ppm [HG-AAS]	Certified
Cadmium	≤ 1.0ppm [GF-AAS]	Certified
Mercury	≤ 0.1ppm [HG-AAS]	Certified

**Disclaimer:** The details provided here are specific to the identified material and may not remain accurate if that material is combined with other substances or used in different processes. The information presented is, to the best of the company's knowledge, considered precise and trustworthy as of the date mentioned. However, the company does not make any explicit or implied assurance, guarantee, or claim regarding the information's precision, trustworthiness, or comprehensiveness, and will not be held accountable for any losses, damages, or costs, whether direct or indirect, that arise from its use. Users are encouraged to independently verify the appropriateness and thoroughness of this information for their specific purposes.

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<b>B(a)p</b>	≤ 2.0ppb [HPLC]	Certified
<b>PAH4</b>	≤ 10.0ppb [GC-MS]	Certified
<b>Total Aerobic Microbial</b>	≤ 1000cfu/g [USP<2021>]	Certified
<b>Total Yeasts and Molds</b>	≤ 100cfu/g [USP<2021>]	Certified
<b>E. coli</b>	Negative/10g [USP<2022>]	Certified

**Conform to the In-house standard, European regulations and current USP standards.**

### **STABILITY AND STORAGE:**

Keep in tightly closed container in a cool and dry place, protected from sunlight.  
When stored for a period longer than the one specified above, quality should be checked before use.

**As it is electronically generated document, hence no signature required**

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