



大连汉德姆精细化学品有限公司

DALIAN HANDOM CHEMICALS CO.,LTD.

Certificate of Analysis

Product Name: dl- α -Tocopherol

CAS No.: 10191-41-0

Batch Number: HDC20230430

Batch Quantity: 5100kg

Manufacturing Date: Apr 30th, 2023

Retest Date: Apr 29th, 2025

Packing Size: 20kg/Drum

Test Standard: EP/USP/FCC/JECFA/E307/GB

Test Items	Test Methods	Acceptance Criteria	Test Results
Appearance	Visual	Slightly yellow to amber, clear, viscous oil	Conforms
Identification	E307/JECFA/GB	Meets the requirements	Conforms
Chromaticity	ASTM	Not more than 4.0	2.0
Refractive Index	E307/JECFA/GB	1.503 ~ 1.507	1.506
Specific Absorption	E307/JECFA/GB	72 ~ 76	74
Acidity	USP/FCC/JECFA/GB	Not more than 1.0mL	0.02mL
Related Substances			
Impurity A	EP	Not more than 0.5%	<0.10%
Impurity B	EP	Not more than 1.5%	0.16%
Sum of impurities C and D	EP	Not more than 1.0%	<0.10%
Any other impurity	EP	Not more than 0.25%	0.16%
Total impurities	EP	Not more than 2.5%	0.45%
Assay (GC)	EP/USP	96.0% ~ 102.0%	101.5%
Residue on Ignition	E307/JECFA/GB	Not more than 0.1%	0.04%
Arsenic (As)	ChP	Not more than 1 ppm	Conforms
Lead (Pb)	E307/JECFA/FCC/GB	Not more than 2 mg/kg	<0.5 mg/kg
Residual Solvents			
Diethyl carbonate	In-house	Not more than 5000ppm	Conforms
Microbial Limit Test			
Moulds & Yeasts Count	GB 4789.15	Not more than 100 CFU/g	Conforms
Aerobic Plate Count	GB 4789.2	Not more than 1000 CFU/g	Conforms
Coliforms	GB 4789.3	Less than 3.0 MPN/g	Conforms
Salmonella	GB 4789.4	Negative/25g	Not detected
Escherichia coli	GB 4789.38	Less than 10 CFU/g	Conforms
Staphylococcus aureus	GB 4789.10	Negative/25g	Not detected

Conclusion: The testing results of this batch are complied with the standards of EP/USP/FCC/JECFA/E307/GB.