



MTC Industries, Inc.

Nutra**c**euticals, Food**c**euticals, and Pharma**c**euticals

PRODUCT SPECIFICATION

Product Name: D-alpha Tocopheryl Acid Succinate 1210IU

TEST ITEMS	SPECIFICATIONS	TEST METHOD
Identification	1. Color reaction: Positive	USP
	2. Specific Rotation $[\alpha]_D^{25^\circ C}$: $\geq +24^\circ$	USP<781>
	3. Retention time of peak corresponds to reference solution	USP
Acidity	18.0~ 19.3 ml	USP
Assay	96.0%~ 102.0%, ≥ 1162 IU	USP
Appearance	White to off-white granular or powder	Visual
Particle Size	Residue on 20 mesh $\leq 1\%$	USP <786>
Bulk Density	0.45g/cm ³ ~0.60 g/cm ³	USP<616>
Tapped Density	0.50g/cm ³ ~0.65 g/cm ³	USP<616>
*Benzo(a)Pyrene	≤ 2 ppb	GC-MS
<u>Solvent</u>		
Hexane	≤ 290 ppm	USP <467>
Ethanol	≤ 5000 ppm	USP <467>
<u>Heavy metal</u>		
Lead	≤ 0.5 mg/kg	AAS
Arsenic	≤ 1 mg/kg	AFS
Cadmium	≤ 0.5 mg/kg	AAS
Mercury	≤ 0.1 mg/kg	AFS
<u>Microbiological test</u>		
Aerobic Plate count	≤ 1000 cfu/g	USP<61>
Yeast and Mold	≤ 100 cfu/g	USP<61>
E. Coli	Negative/g	USP<62>
Salmonella	Negative/25g	USP<62>



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Staphylococcus Aureus	Negative/10g	USP<62>
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