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PRODUCT SPECIFICATIONS

Product: FLORAMAC® 10
INCI Name: Ethyl Macadamiate Botanical Origin: *Macadamia integrifolia*
Description: Clear, almost colorless to light yellow, liquid at or above ambient temperature. Below ambient temperature, partial crystallization may appear as cloud-like formations which may settle to the bottom. The product can be used as is or warmed slightly to remove cloudiness.
Product Code: M3A-010

<u>Typical Properties</u>	<u>Method</u>	<u>Units</u>	<u>Range</u>	
			<u>min.</u>	<u>max.</u>
Ethyl Ester Composition	AOCS Ce 1e-91	area %		
Ethyl Myristate 14:0			0.5	1.5
Ethyl Palmitate 16:0			7	11
Ethyl Palmitoleate 16:1			17.5	---
Ethyl Stearate 18:0			2	4
Ethyl Oleate 18:1			55	62
Ethyl Linoleate 18:2			1	4
Ethyl Arachidate 20:0			2	4
Ethyl Eicosenoate 20:1			2	4
Refractive Index @ 40°C	AOCS Cc 7-25	n _D	1.440	1.450
Saponification Value	AOCS Cd 3-25	mg KOH/g	180	190
Specific Gravity	AOCS Cc 10c-95	---	0.86	0.88
Trans isomers	AOCS Cd 14-95	wt. %	None detected	
<u>Specification Values</u>				
Acid Value	AOCS Cd 3d-63	mg KOH/g	---	2
Color	AOCS Cc 13e-92	Lovibond, 5¼"	---	2 R, 10 Y
Iodine Value	AOCS Cd 1d-92 or 1c-85	g/100g	70	76
Odor	TW71	---	Typical	
Peroxide Value	AOCS Cd 8-53	meq/kg	---	4
Absence of microbial contamination	TW26	CFU/g	---	100

<u>Composition (INCI name)</u>	<u>Wt. %</u>
Tocopherol	0.1
Malic Acid	0.05
Ethyl Macadamiate	99.85

Shelf Life (from date of purchase when stored in the original unopened container at or below 35°C) 1 year

Typical Properties are verified on a random basis.

TW Method: Floritech Methods

Specification properties are verified on every product lot.

AOCS Method: Official Method of the American Oil Chemists' Society

FLORAMAC Section

This product is warranted to perform in accordance with specifications and to be free from defects for 12 months from the date of purchase, when stored in the original unopened container, and with proper handling and storage. Floritech's obligation is limited to replacement of the product and is in lieu of all other warranties, expressed or implied. In no event shall Floritech be responsible for any incidental or consequential damages. Fully detailed technical literature is available. The preceding data is provided for the convenience of the user and does not relieve the user of normal liability for inspection of material upon delivery or prior to actual use. No warranty of fitness for a particular purpose is made. Statements concerning the possible use of our product is not intended as recommendations to use our product in the infringement of any patent. This product contains no animal-derived ingredients and, therefore, cannot carry the Bovine Spongiform Encephalopathy (BSE) disease. This product contains no detectable 'trans' isomers and no ingredients derived from genetically modified organisms (GMO).

PS M3A-010