Batch Number:
20261109-CTSI1EML

ALTRAFLORA
NATURAL EXTRACTS

Manufactured:
09.11.2026

TECHNICAL DATA SHEET

Product Information

Product Name: Sweet orange food fragrance — water-dispersible (cold-pressed), PN AF-CTSI1EML

Scientific name: *Citrus sinensis*

Parts utilized for extraction: Fruit peel (fresh)

Appearance: Milky-white to pale-yellow oil-in-water emulsion

Aroma: Fresh, sweet and juicy citrus, true to ripe orange peel

Solubility: Dispersible in water (oil-in-water emulsion); miscible with ethanol

Raw Material Specification

Analysis	Method	Result
Total ash for herb	Ph. Eur. (2.4.16)	<5%
Pesticides	GC/MS, LC-MS/MS	Complies with Ph. Eur. (2.8.13)
Aflatoxins (G1, G2, B1, B2)	AOAC 999.07	Complies with Ph. Eur. (2.8.18)
Ochratoxin A	AOAC 2004.10	Complies with Ph. Eur. (2.8.22)
Benzo(a)pyrene (PAH)	JOSS 2002 25, pp. 96–100	<10 ppb

Extract Specification

Method	Analysis	Specification	Result
GC-FID, area normalisation (AF-LABGC003)	**Major components:**		
	Limonene	min. 90 %	96.43 %
	β-Myrcene	min. 1.0 %	1.59 %
	α-Pinene	max. 1.0 %	0.46 %
	Sabinene	max. 1.0 %	0.33 %
	Linalool	max. 1.0 %	0.27 %
	TOTAL	**min. 95 %**	**99.08 %**
GC-FID, area normalisation (AF-LABGC003)	Identified compounds (GC-FID area)	min. 98 %	99.78 %
ICP-OES (In-house method)	Arsenic (As)	N.D. (< 1 ppm)	N.D.
	Cadmium (Cd)	N.D. (< 3 ppm)	N.D.
	Lead (Pb)	N.D. (< 1 ppm)	N.D.
	Mercury (Hg)	N.D. (< 0.1 ppm)	N.D.
ISO 4833-1	Total aerobic microbial count (cfu/g)	<10000	Complies
ISO 21527-2	Yeast & mold (cfu/g)	<100	Complies
ISO 16649-2	*Escherichia coli*	N.D. (in 1 g)	N.D.
ISO 6579	*Salmonella*	N.D. (in 25 g)	N.D.
ISO 13720	*Pseudomonas aeruginosa*	N.D. (in 1 g)	N.D.
ISO 6888-1	*Staphylococcus aureus*	N.D. (in 1 g)	N.D.

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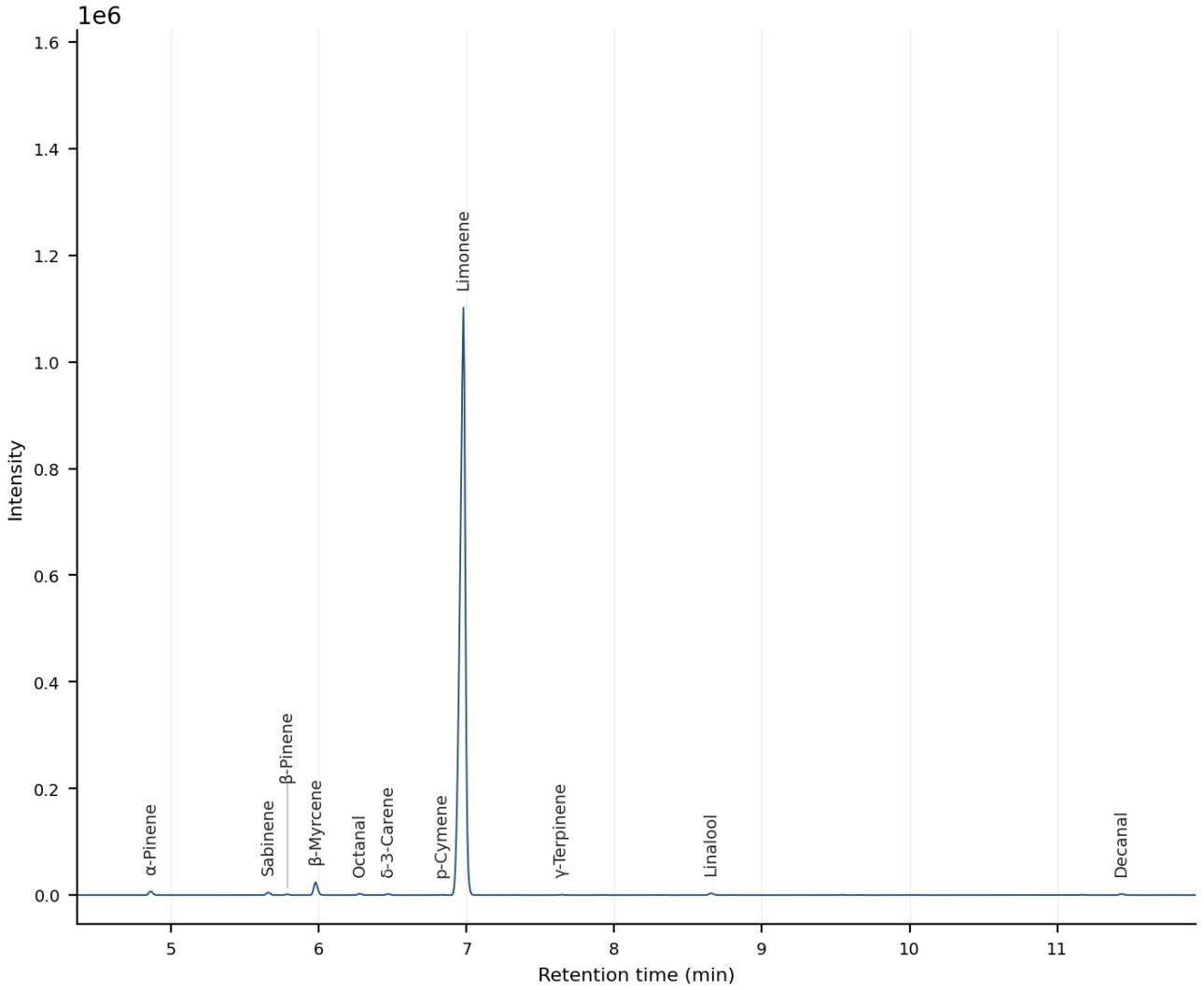
Chromatogram



Additional Data

Storage conditions: Store refrigerated (2–8 °C); keep away from intense light and high heat. Shake well before use.

Carrier: Lecithin (E322(i)) and water. The sweet orange essential oil is emulsified in this lecithin / water base.

Packaging: 30 g, 50 g and 100 g amber glass bottles with food-grade fine-mist spray head.

Shelf life: 12 months (unopened, refrigerated)

Dosage and use: A water-dispersible form of cold-pressed sweet orange (Citrus sinensis) fragrance oil, emulsified in a lecithin / water base for direct incorporation into aqueous food and beverage systems without a pre-solubilization step. Sweet orange is the most widely used citrus fragrance in food work; in water-based systems it suits soft drinks, juice drinks, syrups, dairy drinks and desserts. The profile is overwhelmingly d-limonene, which gives the immediate juicy lift but also makes the material prone to oxidation: keep containers closed, cold and full. As with all expressed citrus peel oils, observe the photosensitivity guidance applicable to leave-on skin products. Compositional figures in the Extract Specification and the chromatographic profile refer to the essential-oil fraction of the product, determined by GC-FID area normalisation; the carrier is stated separately above.

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Full chromatographic profile (GC-FID)

Name	CAS	RT (min)	Content (%)
α-Pinene	**80-56-8**	**4.863**	**0.46**
Sabinene	**3387-41-5**	**5.659**	**0.33**
β-Pinene	127-91-3	5.787	0.10
β-Myrcene	**123-35-3**	**5.980**	**1.59**
Octanal	124-13-0	6.277	0.18
δ-3-Carene	13466-78-9	6.469	0.15
p-Cymene	99-87-6	6.829	0.04
Limonene	**138-86-3**	**6.980**	**96.43**
γ-Terpinene	99-85-4	7.644	0.06
Linalool	**78-70-6**	**8.656**	**0.27**
Decanal	112-31-2	11.435	0.17

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Sweet orange food fragrance, water-dispersible (*Citrus sinensis*), product number AF-CTSI1EML