Batch Number:
20261109-CTAR1EML

ALTRAFLORA
NATURAL EXTRACTS

Manufactured:
09.11.2026

TECHNICAL DATA SHEET

Product Information

Product Name: Bitter orange food fragrance — water-dispersible (cold-pressed), PN AF-CTAR1EML

Scientific name: *Citrus aurantium*

Parts utilized for extraction: Fruit peel (fresh)

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

Aroma: Fresh, dry citrus with a bitter-green edge

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)	<4%
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. 88 %	93.76 %
	Linalool	max. 4.0 %	1.90 %
	β-Myrcene	0.5 – 3.0 %	1.27 %
	α-Pinene	0.5 – 3.0 %	1.25 %
	Decanal	0.1 – 1.0 %	0.43 %
	Octanal	0.1 – 1.0 %	0.38 %
	Sabinene	max. 1.0 %	0.27 %
	TOTAL	**min. 92 %**	**99.26 %**
GC-FID, area normalisation (AF-LABGC003)	Identified compounds (GC-FID area)	min. 98 %	99.87 %
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.

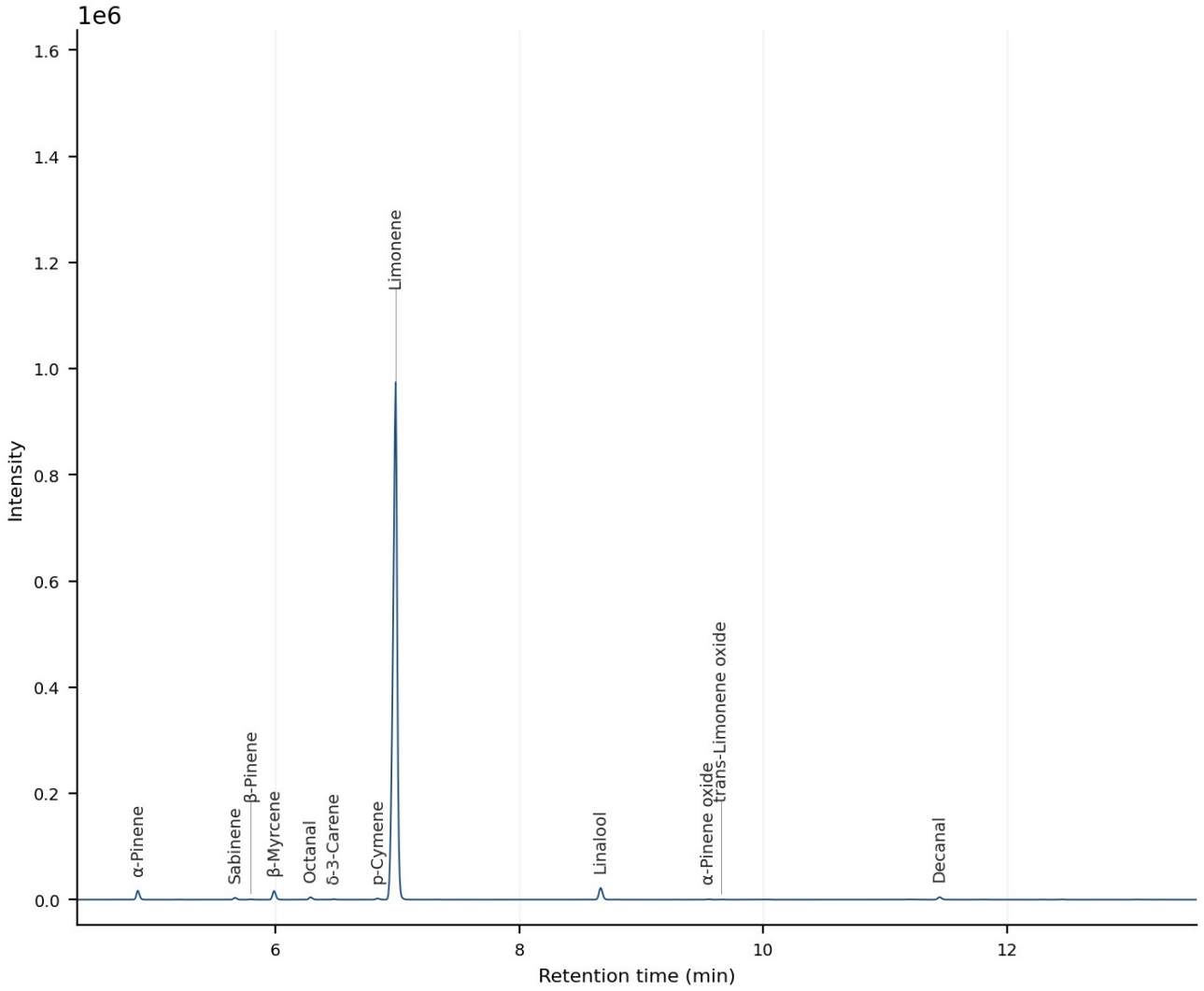
Zafer Mahallesi, 1033/2 Sokak, No: 16/A, Merkezefendi/DENİZLİ || www.altraflora.com

Batch Number:
20261109-CTAR1EML

ALTRAFLORA
NATURAL EXTRACTS

Manufactured:
09.11.2026

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 bitter 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 bitter orange (Citrus aurantium) fragrance oil, emulsified in a lecithin / water base for direct incorporation into aqueous food and beverage systems without a pre-solubilization step. Bitter orange peel oil is drier and greener than sweet orange, with a bitter edge; in water-based work it suits soft drinks, bitters and aperitifs, syrups, marmalades and citrus desserts. The oil is almost entirely limonene, with linalool giving the soft floral lift that distinguishes it. 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.

Zafer Mahallesi, 1033/2 Sokak, No: 16/A, Merkezefendi/DENİZLİ || www.altraflora.com

Batch Number:
20261109-CTAR1EML

ALTRAFLORA
NATURAL EXTRACTS

Manufactured:
09.11.2026

Full chromatographic profile (GC-FID)

Name	CAS	RT (min)	Content (%)
α-Pinene	**80-56-8**	**4.872**	**1.25**
Sabinene	**3387-41-5**	**5.669**	**0.27**
β-Pinene	127-91-3	5.798	0.05
β-Myrcene	**123-35-3**	**5.990**	**1.27**
Octanal	**124-13-0**	**6.289**	**0.38**
δ-3-Carene	13466-78-9	6.480	0.09
p-Cymene	99-87-6	6.839	0.18
Limonene	**138-86-3**	**6.986**	**93.76**
Linalool	**78-70-6**	**8.668**	**1.90**
α-Pinene oxide	1686-14-2	9.554	0.07
trans-Limonene oxide	4959-35-7	9.658	0.07
α-Terpineol	98-55-5	11.181	0.05
Decanal	**112-31-2**	**11.447**	**0.43**
Carvone	99-49-0	12.447	0.05
Neral	106-26-3	13.052	0.05

Zafer Mahallesi, 1033/2 Sokak, No: 16/A, Merkezefendi/DENİZLİ || www.altraflora.com