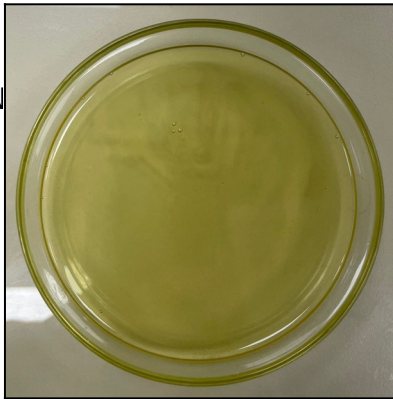


TECHNICAL DATA SHEET

Product Information



Product Name: Pomegranate seed SFE extract (origin: Turkey), PN
Scientific name: *Punica granatum*
Parts utilized for extraction: Seeds (dry)
Appearance: Pale yellow oil
Flavour & aroma: Subtly fruity, with a faint tangy undertone
Solubility: Immiscible with water

Raw Material Specification

Analysis	Method	Result
Total ash for herb	Ph. Eur. (2.4.16)	<3%
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

Analysis	Method	Specification	Result
Free fatty acids	Titration method (in-house)	<5.0 %	4.2 %
Peroxide value	Titration method (in-house)	<10 meq kg ⁻¹	6.9 meq kg ⁻¹
Squalene	GC-FID (ih-house method)	>1.0 %	1.4 %

Fatty acid composition:

Palmitic acid (C16:0)	GC-FID (in-house method)	C16:0: <3%	
Linoleic acid (C18:2ω6)		C18:2ω6: <10.0 %	2.3 %
Oleic acid (C18:1ω9)			6.0 %
Punicic acid (C18:3ω5)		C18:1ω9: <6.0 %	4.0 %
Stearic acid (C18:0)		C18:1ω7: >50.0 %	53.3 %
cis-11-Eicosenoic acid (C20:1ω9)			1.4 %
Arachidic acid (C20:0)		C18:0: <2.0 %	0.6 %
		C20:1ω9: <1.0 %	0.4 %
		C20:0: <1.0 %	
Loss on drying (%)	Ph. Eur. (2.8.17)	<5%	4.2%
Ethanol residue (ppm)	HS GC (In-house method)	<500	<LOQ
Arsenic (As)	ICP-OES (In-house method)	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.
Total aerobic microbial count	ISO 4833-1	<10000	Complies

Pomegranate Seed SFE extract (*Punica granatum*), product number AF-PUGR1TSF

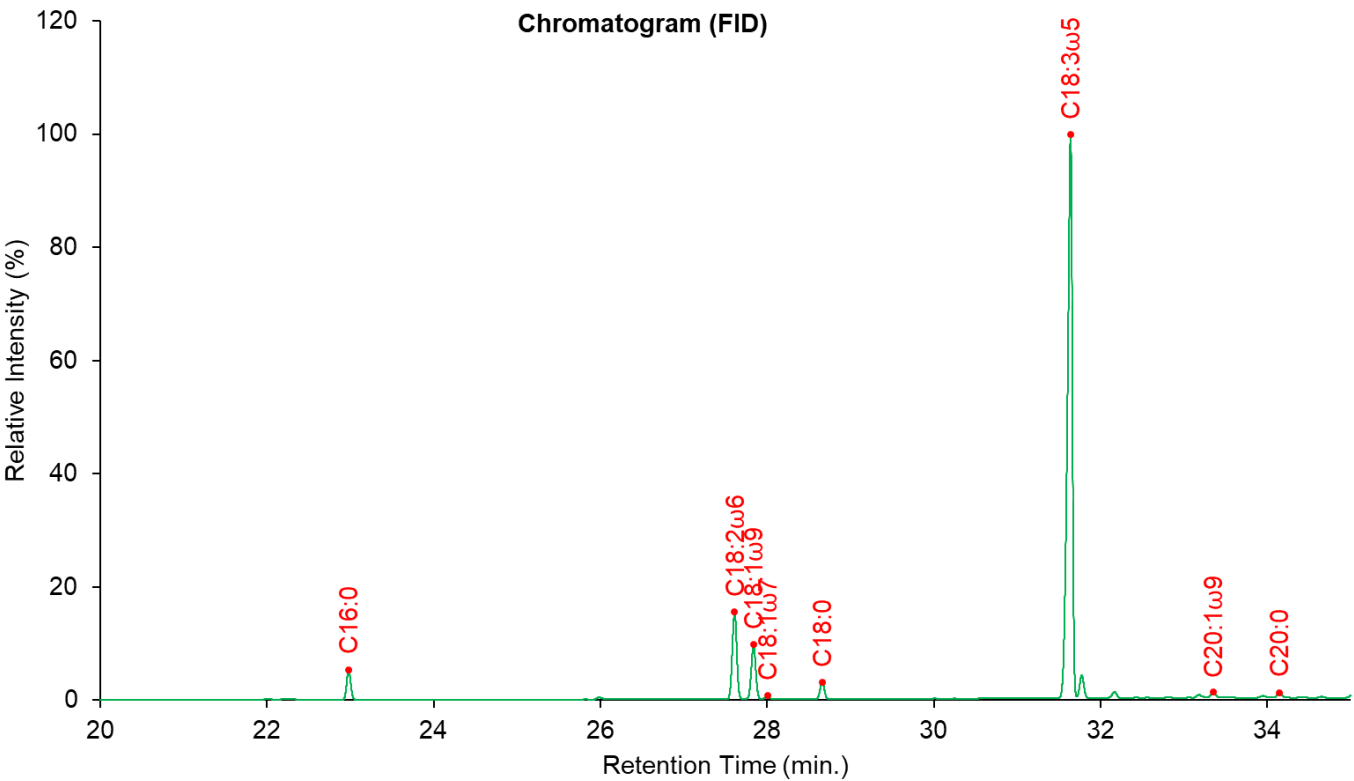
Batch Number:
20252912-PUGR1TSF



Manufacturing
Date:
29.12.2025

Analysis	Method	Specification	Result
(cfu/g)			
Yeast & mold (cfu/g)	ISO 21527-2	<100	Complies
<i>Escherichia coli</i>	ISO 16649-2	N.D. (in 1 g)	N.D.
<i>Salmonella</i>	ISO 6579	N.D. (in 25 g)	N.D.
<i>Pseudomonas aeruginosus</i>	ISO 13720	N.D. (in 1 g)	N.D.
<i>Staphylococcus aureus</i>	ISO 6888-1	N.D. (in 1 g)	N.D.

Chromatogram(s)



Additional Data

Storage conditions: Store in cool and dry place, keep away from intense light and high heat.

Carrier: None. This is a pure extract obtained using only food-grade CO₂ as solvent.

Packaging: 1-5 kg/bottle, 10-25-50 kg/drum.

Shelf life: 24 months

Dosage and use: The extract is dominated by punicic acid (9Z,11E,13Z-octadecatrienoic acid). This omega-5 fatty acid, unique to pomegranate and a few related species, is responsible for the extract's distinctive bioactivity profile.

Punicic acid's documented anti-inflammatory, skin-regenerating, and collagen-stimulating properties support positioning in anti-aging serums, repair creams, and formulations targeting mature, damaged, or photostressed skin. The conjugated fatty acid structure provides enhanced penetration and bioavailability compared to conventional polyunsaturated oils. Hair care applications leverage the extract for dry, brittle hair treatments and scalp conditioning. Nutraceutical applications focus on metabolic health, with research indicating effects on lipid metabolism, glucose homeostasis, and inflammatory markers relevant to metabolic syndrome and cardiovascular wellness.

Pomegranate Seed SFE extract (*Punica granatum*), product number AF-PUGR1TSF