

GREEN MANDARIN OIL

Ref. 29135

Version 2RME07 – Revision Date: November 22, 2023

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1. PRODUCT

1.1 Product identifier

product trade name	Green Mandarin Oil - Ref. 29135
botanical origin	<i>Citrus reticulata</i> , BLANCO
production process	obtained by cold pressing from fresh Mandarin fruits
status	100% Natural Complex Substance
EU name	Mandarin orange, ext.
EC number	284-521-0
CAS number (EC inventory)	84929-38-4
other CAS number	8008-31-9
FDA number	21CFR182.20
CE number	142
FEMA number	2657
RIFM number	250-G2.5
INCI name	citrus nobilis peel oil expressed

2. PHYSICAL AND CHEMICAL PROPERTIES

2.1 Organoleptic characteristics

appearance & color	liquid – green to dark green-brownish
odor	Italian mandarin note - fruity & juicy

2.2 Physical & chemical data

analysis	ranges	instruments
relative density d_4^{20}	0.8400 ÷ 0.8600	ANTON PAAR - DMA 4500
optical rotation α_D^{20}	+64.00° ÷ +84.00°	Optical Activity - POLAAR 20
refractive index n_D^{20}	1.4690 ÷ 1.4790	ANTON PAAR - RXA 170
peroxides	≤20 mmol/l	CDR - FoodLab
flash point	51 °C (123.8 °F)	GRABNER - Miniflash FLP
solubility	alcohol - other oils	-

2.3 Key peaks

common name	ranges	instruments
α-pinene	≤4.00%	GC - internal method
β-pinene	≤2.50%	GC - internal method
myrcene	≤2.50%	GC - internal method
limonene	70.00% ÷ 85.00%	GC - internal method
γ-terpinene	≤22.00%	GC - internal method
linalool	≤0.25%	GC - internal method
citronellal	≤0.10%	GC - internal method
citronellol	≤0.07%	GC - internal method
citral	≤0.07%	GC - internal method
geraniol	≤0.07%	GC - internal method
methyl N-methylantranilate	≤0.45%	GC - internal method

2.4 Furocoumarins

common name	ranges	instrument
furocoumarins	absent	HPLC - internal method

3. CERTIFICATIONS

3.1 Statements

Food & Natural (EU - US)	this product is solvents, preservatives and other technical adjuvants free, it is a 100% natural flavouring agent obtained by physical processes only from one botanical source (<i>Citrus reticulata</i> , BLANCO), according to Reg. (EC) N. 1334/2008 Art. 3 (2)(d) & Code of Federal Regulation (CFR) Title 21 - 101.22 (a)(3)
Food Allergens Free (EU - US)	this product is single-ingredient , it is a 100% natural flavouring agent obtained by physical processes only from one botanical source (<i>Citrus reticulata</i> , BLANCO) and it does not contain any food allergen listed in the Annex II of Reg. (EU) Nr. 1169/2011 nor any of the nine "Major Food Allergens" as defined in the Food Allergy Safety, Treatment, Education, and Research (or FASTER) Act of 2021 of the United States of America.
GMO Free	this product has been obtained from non-genetically modified plants; no enzyme and/or no GMO enzymes have been used during the production process and consequently, with reference to Regulations (EC) 1829/2003 and 1830/2003, it does not contain GMO or GMO-derived product

4. STORAGE / SHELF LIFE

4.1 Precautions for safe storage

container & conditions	to be stored in stainless steel drums, preferably under inert atmosphere (nitrogen) with minimum head space, protected from day-light in a dry, aerated place, away from any heat source and ignition source
temperature	from 5 °C to 21 °C
shelf life	18 months, as per recommended storage conditions