

**BERGAMOT BERGAPTENE FREE**

Ref. 17562

Version 3RME13 - Revision Date: November 22, 2023

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**1. SUBSTANCE**

**1.1 Product identifier**

product trade name	Bergamot Bergaptene Free – Ref 17562
relevant identified uses	odour agent / flavouring agent
botanical origin	<i>Citrus bergamia</i> , RISSO et POITEAU
production process	obtained by cold pressing from the outer part of fresh bergamot fruits and from its derivatives, further submitted to "La Macchina" Technology - Cold Molecular Evaporator to be decolorized, dewaxed and defurocoumarinized
status	100% Natural Complex Substance
EU name	Bergamot, ext.
EC number	289-612-9
CAS number (EC inventory)	89957-91-5
other CAS number	8007-75-8
RIFM number	1091-G2.33
FDA number	21CFR182.20
CE number	137
FEMA number	2153
INCI name	citrus aurantium bergamia fruit oil

**2. PHYSICAL AND CHEMICAL PROPERTIES**

**2.1 Organoleptics characteristics**

appearance & color	liquid – yellow to greenish
odor	very natural bergamot note with untouched natural bergamot character

**2.2 Physical & chemical data**

analysis	ranges	instruments
specific gravity $d_{4}^{20}$	0.8640 ÷ 0.8740	ANTON PAAR - DMA 4500
optical rotation $\alpha_{D}^{20}$	+18.00° ÷ +35.00°	Optical Activity - POLAAR 20
refractive index $n_{D}^{20}$	1.4610 ÷ 1.4680	ANTON PAAR - RXA 170
peroxides	≤20 mmol/l	CDR - FoodLab
flash point	56 °C (132.8 °F)	GRABNER - Miniflash FLP
solubility	alcohol - other oils	-

**2.3 Key peaks**

common name	ranges	instruments
$\alpha$ -pinene	0.50%÷ 2.00%	GC - internal method
$\beta$ pinene	5.00%÷ 9.00%	GC - internal method
myrcene	0.50%÷ 2.50%	GC - internal method
limonene	30.00%÷ 45.00%	GC - internal method
$\gamma$ -terpinene	5.00%÷ 9.00%	GC - internal method
linalool	7.00%÷ 15.00%	GC - internal method
linalyl acetate	24.00%÷ 36.00%	GC - internal method
citronellol	≤0.03%	GC - internal method
citral	≤0.90%	GC - internal method
bergaptene	≤20 ppm	HPLC - internal method
furocoumarins	≤50 ppm	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 <b>100% natural flavouring agent</b> obtained by physical processes only from one botanical source ( <i>Citrus bergamia</i> , RISSO et POITEAU), <b>according to Reg. (EC) N. 1334/2008 Art. 3 (2)(d) &amp; Code of Federal Regulation (CFR) Title 21 - 101.22 (a)(3).</b>
Food Allergens Free	this product is <b>single-ingredient</b> , it is a 100% natural flavouring agent obtained by physical processes only from one botanical source ( <i>Citrus bergamia</i> , RISSO et POITEAU) and it <b>does not contain any food allergen listed in the Annex II of Reg. (EU) Nr. 1169/2011</b> nor any food allergen listed in the <b>LeDa list</b> (ALBA list).
GMO Free	this product has been extracted from non-genetically modified plant; no enzyme and/or no GMO enzymes has been used during the production process and consequently, with reference to Regulations (EC) 1829/2003 and 1830/2003, <b>it does not contain GMO or GMO-derived product.</b>

**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