

PETITGRAIN BIGARADE

Ref. 21311

Version 6RME05 - Revision date: March 23, 2022

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1. SUBSTANCE

1.1 Product identifier

product trade name	Petitgrain Bigarade - Ref. 21311
relevant identified uses	flavouring agent
production process	obtained by steam distillation from bitter orange tree leaves
botanical origin	<i>Citrus aurantium</i> , (L)
status	100% Natural Complex Substance
EC name	Orange, sour, ext.
EC number	277-143-2
CAS number (EU inventory)	72968-50-4
other CAS number	8014-17-3
FDA number	21CFR182.20
CE number	136
FEMA number	2855
RIFM number	233-E2.12
INCI name (EU CosIng)	citrus aurantium leaf oil

2. PHYSICAL AND CHEMICAL PROPERTIES

2.1 Organoleptics characteristics

appearance & color	clear liquid - amber to very pale yellow
odor	typical of petitgrain bigarade

2.2 Physical & chemical data

analysis	ranges	instruments
relative density d_4^{20}	0.8790 ÷ 0.8990	ANTON PAAR - DMA 4500
optical rotation α_D^{20}	-24.00° ÷ -4.00°	Optical Activity - POLAAR 20
refractive index n_D^{20}	1.4480 ÷ 1.4680	ANTON PAAR - RXA 170
peroxides	≤20 mmol/l	CDR - FoodLab
flash point	75 °C (167 °F)	GRABNER - Miniflash FLP
solubility	alcohol - other oils	-

2.3 Key peaks

common name	ranges	instruments
myrcene	≤2.00%	GC - internal method
limonene	≤5.00%	GC - internal method
y-terpinene	≤0.60%	GC - internal method
linalool	15.00% ÷ 35.00%	GC - internal method
citronellol	≤0.20%	GC - internal method
citronellal	≤0.20%	GC - internal method
citral	≤1.50%	GC - internal method
linalyl acetate	42.00% ÷ 62.00%	GC - internal method
geraniol	≤0.30%	GC - internal method
bergaptene	≤5 ppm	HPLC - internal method
furocoumarins	≤25 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 100% natural flavouring agent obtained by physical processes only from one botanical source [<i>Citrus aurantium</i> , (L)], 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 aurantium</i> , (L)] and it does not contain any food allergen listed in the Annex II of Reg. (EU) Nr. 1169/2011 nor any of the eight "Major Food Allergens" as defined in Section 201(qq) of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. §321) 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