



NHR ORGANIC OILS
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Certificate of Analysis & Gas Chromatography
Organic Neroli Essential Oil
(Citrus aurantium var. amara)

1) GENERAL INFORMATION

<i>Citrus aurantium</i> L. var. <i>amara</i>
Batch number: 200126-1
Origin: Egypt

2) PHYSICAL PROPERTIES

Test	Analysis method	Result
1 Physical state	Visual inspection	Pale yellow liquid
2 Odour	Manual	Reminiscent of bitter orange blossom, fresh, sweet odour.
3 Solubility in water	Manual	Insoluble
4 Solubility in alcohol	Manual	Soluble
5 Specific gravity @20°C	Densimeter 30PX (Mettler-Toledo)	0.866
6 Refractive index @20°C	Refractometer 30GS (Mettler Toledo)	1.467
7 Optical rotation @20°C	Kruss P1000-LED	n/a
8 Flash point	Closed cup	57°C

3) CHROMATOGRAPHIC VALUES OF THE VOLATILE COMPONENTS OF THE OIL (in %)

(Agilent 6890 GC-FID and/or Agilent 78904 GC/5977A MSD)

Components	%	Allergen %
1 α-Pinene	0.39	
2 Sabinene	0.02	
3 β-Pinene	3.57	
4 Myrcene	2.37	
5 Limonene	10.61	10.61
6 β-Ocimene (Z)	0.92	
7 β-Ocimene (E)	4.77	
8 Linalool	41.83	42.69
9 Terpinene-1,ol-4	0.10	

Components	%	Allergen %
10 α-Terpineol	4.99	
11 Nerol	1.19	
12 Linalyl acetate	18.27	
13 Geraniol	1.74	1.74
14 Neryl acetate	3.32	
15 Geranyl acetate	0.70	
16 α-Humulene	0.19	
17 Nerolidol (E)	0.50	
18 Farnesol (E)	1.64	1.64

n.d. = not detected