



ANALYTICAL CERTIFICATE

H 2083/12.11.2019

Test samples: ROSE OIL
Batch: 2019
Producer: "QUEEN OF ROSES" LTD – Bulgaria

Allergens content in essential oil (by GC-MS-analysis), %, Limit < 0.01%

| | Value |
|--|--------|
| 1 Alpha-Isomethyl ionone | < 0.01 |
| 2 Amyl cinnamal | < 0.01 |
| 3 Amylcinnamyl alcohol | < 0.01 |
| 4 Anisyl alcohol | < 0.01 |
| 5 Benzyl alcohol | < 0.01 |
| 6 Benzyl benzoate | < 0.01 |
| 7 Benzyl cinnamate | < 0.01 |
| 8 Benzyl salicylate | < 0.01 |
| 9 Butylphenyl methylpropional/Lillal | < 0.01 |
| 10 Cinnamal | < 0.01 |
| 11 Cinnamyl alcohol | < 0.01 |
| 12 Citral | 1.12 |
| 13 Citronellol | 27.81 |
| 14 Coumarin | < 0.01 |
| 15 Eugenol | 1.40 |
| 16 Farnesol | 1.24 |
| 17 Geraniol | 17.20 |
| 18 Hexyl cinnamal | < 0.01 |
| 19 Hydroxycitronnellal | < 0.01 |
| 20 Hydroxyisohexyl 3-cyclohexene carboxaldehyde / Lylal | < 0.01 |
| 21 Isoeugenol | < 0.01 |
| 22 Limonene | 0.01 |
| 23 Linalool | 1.76 |
| 24 Methyl 2-octynoate | < 0.01 |

LABORATORY ASSISTANT:

(surname ; signature)

HEAD OF LABORATORY:

(surname ; signature)



ANALYTICAL CERTIFICATE
№ 1489/14.11.2019

Test samples: ROSE OIL
Batch: 2019
Producer: "QUEEN OF ROSES" LTD – Bulgaria

PHYSICO-CHEMICAL PROPERTIES ACCORDING TO THE BULGARIAN STATE STANDARD

| | |
|--------------------|--|
| Appearance | Fluid transparent liquid above the congealing point |
| Colour | Yellow |
| Odour | Typical of Bulgarian Rose Oil |
| Optical rotation ° | - 2.35 |
| Refractive index | 1.464 |
| Acid value | 0.90 |
| Ester value | 11.4 |

Characteristic components (by GC-MS-analysis), %

| | | |
|----|----------------------------|-------|
| 1 | Ethanol | 0.19 |
| 2 | cis-Rose oxide | 0.40 |
| 3 | trans-Rose oxide | 0.16 |
| 4 | β-Linalool | 1.76 |
| 5 | Citronellol | 27.85 |
| 6 | Nerol | 11.87 |
| 7 | Geraniol | 17.21 |
| 8 | Geranyl acetate | 0.68 |
| 9 | β-Phenyl ethanol | 0.98 |
| 10 | Heptadecane (parafine C17) | 1.93 |
| 11 | Methyleugenol | 1.41 |
| 12 | Nonadecane - (alkan C19) | 13.66 |
| 13 | Nonadecene - (alken C19) | 4.86 |
| 14 | Eugenol | 1.47 |
| 15 | Eicosane (parafine C20) | 1.39 |
| 16 | Heneicosane (parafine C21) | 5.31 |
| 17 | Farnesol | 1.23 |
| 18 | Tricosane (alkan C23) | 1.07 |

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