



CERTIFICATE OF ANALYSIS (COA)

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PRODUCT INFORMATION

Parameter	Details
Product Name	Rose Damascena CO ₂ Extract Premium
Botanical Name	<i>Rosa damascena</i> Mill.
Common Name	Damask Rose CO ₂ Extract
INCI Name	<i>Rosa Damascena Flower Extract</i>
CAS No.	8007-01-0
FEMA No.	2989
Botanical Family	Rosaceae
Plant Part Used	Flowers
Extraction Method	Supercritical Carbon Dioxide Extraction
Product Type	Natural Botanical CO ₂ Extract
Grade	Premium Professional Perfumery Grade
Country of Origin	Bulgaria / Turkey / Morocco (Batch Dependent)
Carrier / Diluent	None, unless otherwise declared
Purity	100% natural extract

Analytical Specifications and Results

Test Parameter	Specification	Representative Result	Test Method
Appearance	Viscous liquid, semi-solid or soft waxy extract	Viscous semi-solid extract	Visual
Colour	Deep golden yellow to amber or reddish-brown	Deep amber	Visual
Odour	Rich, natural, deep and characteristic rose odour	Complies	Organoleptic
Relative Density at 20°C	0.900–1.020	0.9568	Density Meter
Refractive Index at 20°C	1.4700–1.5150	1.4936	Refractometer
Optical Rotation at 20°C	–5.0° to +5.0°	–0.8°	Polarimeter



Melting / Softening Point	15–35 °C	24 °C	Internal Method
Acid Value	≤10.0 mg KOH/g	4.6 mg KOH/g	Titration
Peroxide Value	≤10.0 meq O ₂ /kg	3.2 meq O ₂ /kg	Titration
Flash Point	≥70 °C	84 °C	Closed Cup
Water Content	≤1.0%	0.22%	Karl Fischer
Solubility in Ethanol	Soluble or dispersible; slight opalescence permitted	Pass	Visual
Solubility in Water	Practically insoluble	Complies	Visual
Foreign Matter	Absent	Pass	Visual
Residual CO₂	Not detected / technically absent	Pass	Internal Method
Residual Organic Solvents	Not detected	Pass	GC
Purity	100% natural CO ₂ extract	Complies	GC-MS / Declaration

Organoleptic Evaluation

Attribute	Evaluation
Opening Note	Fresh, rich and highly diffusive rose petals
Floral Character	Deep, natural, sweet and full-bodied
Secondary Facets	Honeyed, waxy, spicy, green and slightly tea-like
Dry-Down	Warm, persistent, floral and softly balsamic
Texture	Dense, concentrated and rounded
Overall Quality	Premium professional perfumery grade

Rose Damascena CO₂ Extract Premium displays a fuller and more complete botanical profile than conventional steam-distilled rose oil because the CO₂ process may retain heavier aromatic fractions, waxes and low-volatility floral constituents.

Representative GC-MS Composition

Natural Constituent	CAS No.	Representative Specification (%)	Representative Result (%)
Citronellol	106-22-9	15.00–35.00	27.80
Geraniol	106-24-1	8.00–25.00	16.40
Nerol	106-25-2	3.00–15.00	8.60
Phenethyl Alcohol	60-12-8	2.00–15.00	7.90
Nonadecane	629-92-5	2.00–12.00	6.40
Heneicosane	629-94-7	1.00–8.00	3.80
Farnesol	4602-84-0	Trace–3.00	1.40



Eugenol	97-53-0	Trace–3.00	1.10
Linalool	78-70-6	Trace–3.00	0.90
Geranyl Acetate	105-87-3	Trace–3.00	0.80
Methyl Eugenol	93-15-2	≤1.00	0.22
Benzyl Alcohol	100-51-6	Trace–2.00	0.60
Limonene	5989-27-5	Trace–1.00	0.10
Natural Waxes and Non-Volatile Fraction	Various	5.00–30.00	15.20
Other Natural Constituents	Various	Balance	8.38

The composition shown is representative and not a substitute for a batch-specific chromatographic report.

Fragrance Allergen Profile

Fragrance Allergen	Representative Content (%)	Status
Citronellol	27.80	Present
Geraniol	16.40	Present
Farnesol	1.40	Present
Eugenol	1.10	Present
Linalool	0.90	Present
Benzyl Alcohol	0.60	Present
Limonene	0.10	Present
Citral	Trace–0.20	May Be Present
Isoeugenol	Trace–0.20	May Be Present
Benzyl Benzoate	Trace–0.20	May Be Present
Benzyl Salicylate	Trace	May Be Present

Final allergen values must be established using batch-specific GC-MS or quantitative allergen analysis.

Microbiological Quality

Due to the low water activity and concentrated lipophilic nature of the extract, significant microbial growth is not expected.

Test	Specification	Representative Result
Total Aerobic Microbial Count	≤1,000 CFU/g	<10 CFU/g
Yeast and Mould	≤100 CFU/g	<10 CFU/g



Escherichia coli	Absent in 1 g	Not Detected
Salmonella spp.	Absent in 25 g	Not Detected
Staphylococcus aureus	Absent in 1 g	Not Detected
Pseudomonas aeruginosa	Absent in 1 g	Not Detected

Heavy Metals

Parameter	Specification	Representative Result
Lead (Pb)	≤10 ppm	<1.0 ppm
Arsenic (As)	≤3 ppm	<0.5 ppm
Cadmium (Cd)	≤1 ppm	<0.1 ppm
Mercury (Hg)	≤1 ppm	<0.1 ppm

Pesticide and Contaminant Status

Parameter	Status
Pesticide Residues	Complies with applicable limits
Residual Organic Solvents	Not detected
Residual Carbon Dioxide	Technically absent after processing
Phthalates	Not intentionally added
Mineral Oil	Not intentionally added
Synthetic Fragrance Materials	Not intentionally added
Artificial Colours	Not added
Preservatives	Not added
Antioxidants	Not added unless declared
Animal-Derived Materials	None
GMO Materials	Not expected
Irradiation	Not irradiated

Natural and Authenticity Declaration

Rose Damascena CO₂ Extract Premium is declared to be a natural botanical extract obtained through supercritical carbon dioxide extraction.

The material is not intentionally diluted or adulterated with:

- Synthetic citronellol
- Synthetic geraniol
- Synthetic phenethyl alcohol
- Synthetic rose bases
- Essential oils from other botanical species



- Carrier oils
- Dipropylene glycol
- Propylene glycol
- Ethanol
- Mineral oil
- Phthalates
- Artificial colours
- Artificial preservatives

Authenticity should be confirmed through batch-specific GC-MS analysis, olfactory evaluation and review of the original producer's documentation.

Residual Solvent Declaration

The extraction process uses supercritical carbon dioxide rather than conventional organic solvents.

Solvent / Processing Aid	Status
Carbon Dioxide	Used during extraction; removed during depressurisation
Hexane	Not used / Not detected
Ethanol	Not used unless specifically declared
Methanol	Not used / Not detected
Acetone	Not used / Not detected
Other Organic Solvents	Not intentionally used

Applications

Suitable for professional use in:

- Fine fragrances
- Extrait de parfum
- Eau de parfum
- Natural perfumes
- Attars
- Rose accords
- Floral bouquets
- Oriental fragrances
- Chypre fragrances
- Luxury cosmetic fragrances
- Skin-care products
- Hair-care products
- Soap and toiletries



- Incense
- Home-fragrance compositions

Usage must comply with the applicable IFRA Standard, local legislation and the safety assessment of the finished product.

Storage Conditions

Store:

- In the original tightly sealed container
- In a cool, dry and well-ventilated location
- Away from direct sunlight and ultraviolet light
- Away from excessive heat
- Away from moisture
- Away from strong oxidising agents
- With minimum headspace where possible

Recommended Storage Temperature

5–20°C

The product may thicken, crystallise or partially solidify under cool conditions. Allow the sealed container to return gradually to room temperature and homogenise gently before use.

Avoid repeated heating and cooling cycles.

Shelf Life

24 months from the manufacturing date when stored unopened under recommended conditions.

After opening:

- Close the container immediately after use.
 - Minimise exposure to air.
 - Prevent moisture contamination.
 - Use clean, dry dispensing equipment.
 - Consider inert-gas blanketing for long-term storage.
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Quality Conclusion



Based on the representative specifications and analytical values stated in this certificate, the material is considered to conform to the established quality requirements for:

Rose Damascena CO₂ Extract Premium

The material is suitable for professional perfumery and cosmetic fragrance applications, subject to formulation-level safety and regulatory assessment.

Important Product Identity Notice

This certificate follows the supplied identity:

- Product: Rose Damascena CO₂ Extract Premium
- CAS No.: 8007-01-0
- Botanical Name: *Rosa damascena* Mill.
- INCI Name: *Rosa Damascena Flower Extract*

CAS No. 8007-01-0 is commonly used for rose oil and may also be used by some suppliers for rose aromatic extracts. Other producers may identify *Rosa Damascena Flower Extract* under a different CAS or EC number depending on the extraction fraction, wax content and regulatory classification.

The original producer's specification and batch documentation should therefore be reviewed before formal regulatory issue.

Disclaimer

This Certificate of Analysis is a professional representative template prepared using typical technical and compositional information for natural Rose Damascena CO₂ extracts.

The representative results shown are not evidence that a specific batch has been physically tested. Before this document is signed, stamped or issued to a customer, the reported results must be replaced or verified against:

- The original producer's Certificate of Analysis
- Batch-specific GC-MS analysis
- Physical and chemical test results
- Microbiological reports, where applicable
- Heavy-metal analysis, where applicable
- Pesticide-residue analysis
- Supplier allergen documentation



Natural botanical extracts may vary in colour, consistency, odour, density, refractive index, constituent profile, allergen content and non-volatile fraction due to:

- Botanical cultivar
- Growing region
- Climate
- Soil conditions
- Harvest season
- Flower maturity
- Raw-material handling
- CO₂ extraction pressure
- Extraction temperature
- Separation conditions
- Fraction selection
- Wax content
- Storage and oxidation history

Aromology Trading LLC and the finished-product manufacturer remain responsible for confirming material identity, reviewing batch documentation, assessing the complete formulation and ensuring compliance with all applicable quality, cosmetic, fragrance and regulatory requirements.

Authorised by

Fozia Khot

Director

Aromology Trading LLC