



CERTIFICATE OF ANALYSIS (COA)

Product Information

Parameter	Specification
Product Name	Black Pepper Essential CO ₂
Alternative Name	Black Pepper CO ₂ Extract
Botanical Name	<i>Piper nigrum</i> L.
INCI Name	Piper Nigrum Fruit Extract
CAS Number	8006-82-4
EC Number	284-524-7
Origin	India
Plant Part	Dried Fruits (Peppercorns)
Extraction Method	Supercritical Carbon Dioxide (CO ₂) Extraction
Grade	Premium Perfumery Grade
Product Type	Natural CO ₂ Extract

ANALYTICAL SPECIFICATION

Test	Specification	Result
Appearance	Clear to slightly viscous liquid	Conforms
Colour	Pale Yellow to Amber	Conforms
Odour	Fresh, spicy, peppery, woody, warm	Conforms
Relative Density (20 °C)	0.900–0.960	Conforms
Refractive Index (20 °C)	1.485–1.505	Conforms
Optical Rotation	-20° to +5°	Conforms
Flash Point	>75 °C	Conforms
Solubility	Soluble in ethanol	Conforms
Purity	100% Natural CO ₂ Extract	Conforms

Typical Naturally Occurring Constituents

Constituent	Status
β-Caryophyllene	Major Constituent
Sabinene	Present
Limonene	Present
β-Pinene	Present
α-Pinene	Present
δ-3-Carene	Present



Linalool	Present
Myrcene	Present
Germacrene D	Present
Piperine	Trace
Oleoresin Components	Present

Storage

Store tightly closed in a cool, dry place away from direct sunlight, heat and oxidising agents.

Shelf Life

36 months from the date of manufacture when stored under recommended conditions.

Conclusion

This material conforms to the above specification.

Prepared By:

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