

## CERTIFICATE OF ANALYSIS (COA)

<b>Product Name</b>	<b>BLACK PEPPER ESSENTIAL OIL</b>
<b>Botanical Name</b>	Piper nigrum
<b>Product Code</b>	PEO1020
<b>CAS #</b>	8006-82-4 ; 84929-41-9
<b>FEMA #</b>	2845
<b>EINECS #</b>	284-524-7
<b>INCI Name</b>	Piper Nigrum (Black Pepper) Seed Oil

<b>Batch #</b>	10202306
<b>Manufacturing Date</b>	JUNE 2023
<b>Best Before Date</b>	MAY 2026

<b>Part Used</b>	Dried Peppercorn Fruit
<b>Extraction Method</b>	Steam Distilled Essential Oil
<b>Quality</b>	100% Pure and Natural
<b>Note Classification</b>	Middle to Top Note

<u>PROPERTIES</u>	<u>SPECIFICATIONS</u>	<u>RESULTS</u>
<b>Appearance</b>	Colorless to pale yellow green colored liquid	CONFORMS
<b>Odour</b>	Dry-woody, warm, spicy aroma with subtle floral and fruit notes, reminiscent of ground black pepper	CONFORMS
<b>Refractive Index</b>	1.455 - 1.495 @ 20°C	1.468
<b>Specific Gravity (g/mL)</b>	0.850 - 0.890 @ 20°C	0.876
<b>Optical Rotation (°)</b>	-20° to +4°	CONFORMS
<b>Solubility</b>	Soluble in alcohols and fixed oils; Insoluble in water	CONFORMS

<b>Comments</b>	Odour quality is excellent
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<u>MICROBIAL ANALYSIS</u>	<u>SPECIFICATIONS</u>	<u>STANDARDS</u>	<u>RESULTS</u>
<b>Aerobic Mesophilic Bacterial Count</b>	< 100 CFU/g	ISO 21149	CONFORMS
<b>Yeast and Mould</b>	< 10 CFU/g	ISO 16212	CONFORMS
<b>Candida albicans</b>	ABSENT / 1g	ISO 18416	CONFORMS
<b>Escherichia coli</b>	ABSENT / 1g	ISO 21150	CONFORMS
<b>Pseudomonas aeruginosa</b>	ABSENT / 1g	ISO 22717	CONFORMS
<b>Staphylococcus aureus</b>	ABSENT / 1g	ISO 22718	CONFORMS

<u>HEAVY METAL TESTS</u>	<u>SPECIFICATIONS</u>	<u>STANDARDS</u>	<u>RESULTS</u>
<b>Lead: Pb (mg/kg or ppm)</b>	< 10 ppm	na	CONFORMS
<b>Arsenic: As (mg/kg or ppm)</b>	< 2 ppm	na	CONFORMS
<b>Mercury: Hg (mg/kg or ppm)</b>	< 1 ppm	na	CONFORMS

### **STABILITY AND STORAGE:**

Keep in tightly closed container in a cool and dry place, protected from sunlight. When stored for more than 36 months, quality should be checked before use.

**As it is electronically generated document, hence no signature required.**



**CERTIFIED ORGANIC**



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