



Certificate of Analysis

Product Name:	Black Pepper Essential Oil	Extraction Method:	Steam Distilled Essential Oil
Botanical Name:	<i>Piper nigrum</i>	Quality:	100% Pure and Natural
Used Part:	Dried Peppercorn Fruit	Batch Number:	Varies
CAS No.:	8006-82-4; 84929-41-9	Manufacture Date:	Varies
INCI Name:	Piper Nigrum (Black Pepper) Seed Oil	Best Before:	Varies

IDENTIFICATION		SPECIFICATION	STANDARDS	RESULT
Physical	Appearance	Colorless to pale yellow green colored liquid	-	Complies
	Odour	Dry-woody, warm, spicy aroma with subtle floral and fruit notes, reminiscent of ground black pepper	-	Complies
	Refractive Index	1.455 - 1.495 20°C	-	1.467
	Specific Gravity (g/mL)	0.850 - 0.890 20°C	-	0.875
	Optical Rotation (°)	-20° to +4°	-	Complies
	Solubility	Soluble in alcohols and fixed oils; Insoluble in water	-	Complies
Chemical	Lead (Pb)	< 10 ppm	-	Complies
	Arsenic (As)	< 2 ppm	-	Complies
	Mercury (Hg)	< 1 ppm	-	Complies
Microbial	Aerobic Mesophilic Bacterial Count	< 100 cfu/g	ISO 21149	Complies
	Yeast & Mould	< 10 cfu/g	ISO 16212	Complies
	Candida albicans	Negative	ISO 18416	Complies
	Escherichia coli	Negative	ISO 21150	Complies
	P. aeruginosa	Negative	ISO 22717	Complies
	S. aureus	Negative	ISO 22718	Complies

Else	Storage Condition	Keep in a tightly closed container in a cool and dry place, protected from sunlight.
	Shelf Life	When stored for more than 24 months, quality should be checked before use.

