

Black Pepper Oil

Piper nigrum

Batch No.	BPO25102089	Manufacturing Date	16 Oct 2025
Sample Ref.	PN-2089	Expiry / Retest Date	16 Oct 2027
Reporting Date	03 Jul 2026	Country of Origin	Kerala, India

Organoleptic Characteristics

Parameter	Specification	Result
Appearance	Colourless to pale green liquid	Complies
Odour	Dry, woody, peppery-spicy	Characteristic
Solubility	Soluble in alcohol	Complies

Physico-Chemical Analysis

Parameter	Method	Specification	Result
Refractive Index @ 20°C	IS 326 / IP	1.478 – 1.491	1.478
Specific Gravity @ 25°C	IS 326 / IP	0.860 – 0.895	0.860
Optical Rotation @ 20°C	IS 326 / IP	-16° to +4°	Within limits
Extraction Method	In-house	Steam Distillation	Complies
CAS Number	—	8006-82-4	8006-82-4

Chromatographic Assay (GC-MS / HPLC)

Constituent	Method	Specification	Result
β-Caryophyllene	GC-MS	22% min	23.42 %
Other identified marker	GC-MS	Report	8.55 %
Total volatile content	GC-MS	≥ 95%	96.64 %

Purity & Safety

Parameter	Specification	Result
Heavy Metals (as Pb)	≤ 10 ppm	< 1 ppm
Arsenic	≤ 3 ppm	< 0.5 ppm
Pesticide Residues	As per EU 396/2005	Complies
Microbial Count (TAMC)	≤ 1000 cfu/g	< 100 cfu/g

E. coli / Salmonella	Absent / g	Absent
GMO Status	Non-GMO	Complies
Allergen Declaration	IFRA / EU 1223/2009	See product data sheet

Conclusion: The above batch complies with Plantique Naturals in-house specifications and referenced pharmacopoeial / regulatory standards. Material is released for dispatch.

Analysed by
Quality Control Laboratory
Plantique Naturals

Approved by
K. Regalla
Quality Assurance Head

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