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Certificate of Analysis

Product: Black Pepper Oil
 Botanical name: *Piper nigrum*
 Origin: India
 Batch (Lot) # : BLP/1001
 Date of MFG: 25/11/2017
 Expiration date: 24/11/2021

Parameters	Specification	Results
Colour	Colorless to very pale blueish green	Complies
Odour	Typical black pepper oil	Complies
Specific gravity @20°C (g/cm ³)	0.864 – 0.884	0.8686
Refractive index @25°C	1.479 – 1.488	1.487
Optical rotation @25°C	-1° - -23°	-13°
Analysis Components		
Chemical Name		
α-pinene	13.00% - 18.00%	
β-pinene	10.00% - 14.00%	
Sabinene	8.00% - 15.00%	
α-Phellandrene	1.00% - 10.00%	
Limonene	13.00% - 17.00%	
β-Caryophyllene	10.00% - 22.00%	

Storage: Store in well-filled, tightly sealed containers, in a cool dry place, away from direct sunlight. Avoid contact with iron.

This is a computer generated certificate of analysis and does not require a signature.