

CERTIFICATE OF ANALYSIS (COA)

Product Name		CLOVE BUD ESSENTIAL OIL		
Botanical Name		Syzygium aromaticum (synonym Eugenia caryophyllata)		
CAS #		8000-34-8 ; 84961-50-2		
EINECS #		284-638-7		
INCI Name		Eugenia Caryophyllus (Clove) Flower Oil		
Part Used		Buds		
Extraction Method		Steam Distilled Essential Oil		
Quality		100% Pure and Natural		
Note Classification		Middle Note		
<u>PROPERTIES</u>	SPECIFICATIONS			RESULTS
Appearance	Colorless to amber liquid.			CONFORMS
Odour	Characteristic Odor			CONFORMS
Refractive Index	1.527 and 1.535			1.5350
Specific Gravity (g/mL)	1 .038 to 1.060			1.0455
Optical Rotation (°)	(-)1.5° to +3°			+2.97°
Assay by GC	Eugenol	0% - 90% cetate > 6% hyllene >8		Eugenol 80.50% Eugenol acetate 8.20% b- Caryophyllene 9.11%
MICROBIAL ANALYSIS		SPECIFICATIONS	STANDARDS	RESULTS
Aerobic Mesophilic Bacterial Count		< 100 CFU/g	ISO 21149	CONFORMS
Yeast and Mould		< 10 CFU/g	ISO 16212	CONFORMS
Candida albicans		ABSENT / 1g	ISO 18416	CONFORMS
Escherichia coli		ABSENT / 1g	ISO 21150	CONFORMS
Pseudomonas aeruginosa		ABSENT / 1g	ISO 22717	CONFORMS
Staphylococcus aureus		ABSENT / 1g	ISO 22718	CONFORMS
HEAVY METAL TESTS		SPECIFICATIONS	STANDARDS	<u>RESULTS</u>
Lead: Pb (mg/kg or ppm)		< 10 ppm	na	CONFORMS
Arsenic: As (mg/kg or ppm)		< 2 ppm	na	CONFORMS
Mercury: Hg (mg/kg or ppm)		< 1 ppm	na	CONFORMS

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