



TECHNICAL DATA SHEET (TDS)

FENNEL (BITTER) ESSENTIAL OIL

Product Name	FENNEL (BITTER) ESSENTIAL OIL
Botanical Name	Foeniculum vulgare
Product Code	GEO-N9
CAS #	84625-39-8 ; 8006-84-6
FEMA #	2481
EINECS #	283-414-6
INCI Name	Foeniculum Vulgare Oil
Part Used	Seeds
Extraction Method	Steam Distilled Essential Oil
Quality	100% Pure and Natural
Note Classification	Middle to Top Note

PROPERTIES	SPECIFICATIONS
Appearance	Colorless to pale yellow clear liquid
Odour	Characteristic sweet herbaceous odor
Refractive Index	1.480 to 1.510 @ 20°C
Specific Gravity (g/mL)	0.877 to 0.920 @ 20°C
Optical Rotation (°)	+5° to +20°
Solubility	Soluble in alcohols and fixed oils; Insoluble in water

MICROBIAL ANALYSIS	SPECIFICATIONS	STANDARDS
Aerobic Mesophilic Bacterial Count	< 100 CFU/g	ISO 21149
Yeast and Mould	< 10 CFU/g	ISO 16212
Candida albicans	ABSENT / 1g	ISO 18416
Escherichia coli	ABSENT / 1g	ISO 21150
Pseudomonas aeruginosa	ABSENT / 1g	ISO 22717
Staphylococcus aureus	ABSENT / 1g	ISO 22718

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

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.

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