

TECHNICAL DATA SHEET (TDS)
CLOVE LEAF OIL
(*Syzygium Aromaticum* Leaf Oil)

1. PRODUCT IDENTIFICATION & OVERVIEW

Product Name	Clove Leaf Oil
INCI Name	Eugenia Caryophyllus (Clove) Leaf Oil
Botanical Name	Syzygium aromaticum (L.) Merr. et Perry, syn. Eugenia caryophyllus (Sprengel) Bullock et S. Harrison
CAS Number	8000-34-8 / 84961-50-2
Description	100% Pure and Natural essential oil obtained by steam distillation of the leaves of clove [<i>Syzygium aromaticum</i> (L.) Merr. et Perry, syn. <i>Eugenia caryophyllus</i> (Sprengel) Bullock et S. Harrison], of the Myrtaceae family .

2. TECHNICAL & SENSORY PROPERTIES

Appearance	Clear, mobile liquid
Colour	Colourless to pale yellow
Odour	Characteristic sweet, spicy clove odour with caryophyllene note
Relative Density (20/20°C)	1.036 – 1.060
Refractive Index (20°C)	1.527 – 1.538
Optical Rotation (20°C)	-2° to 0°
Eugenol Content	75% – 95%
β-Caryophyllene Content	4% – 17%
Methyl Eugenol	Maximum 0.1%

3. APPLICATIONS & USES

Fragrance & Perfumery	Widely used as a source of natural eugenol and in spicy fragrance compositions for soaps, detergents, and personal care products.
Flavour & Food Industry	Used as a flavouring agent in food products, though less commonly than clove bud oil due to its milder aroma profile.
Cosmetics & Personal Care	Incorporated into oral care products, massage oils, and skincare formulations for its warming and antiseptic properties.
Aromatherapy & Wellness	Valued for its warming, stimulating, and analgesic properties in aromatherapeutic blends.
Industrial Use	Important natural source for the isolation of eugenol for further chemical processing.

4. STORAGE, PACKAGING & SAFETY

Storage Conditions	Store in cool, dry place in tightly sealed containers, protected from heat and light.
Packaging	1 kg and 5 kg aluminium containers; 25 kg HDPE containers.
Shelf Life	36 months when stored properly in unopened original containers.
Safety & Handling	Avoid contact with eyes and prolonged skin contact. Handle in well-ventilated areas. Wear protective gloves and eye protection.

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