

TECHNICAL DATA SHEET (TDS)
TEA TREE OIL
(*Melaleuca Alternifolia* Oil)

1. PRODUCT IDENTIFICATION & OVERVIEW

Product Name	Tea Tree Oil
INCI Name	Melaleuca Alternifolia (Tea Tree) Leaf Oil
Botanical Name	Melaleuca alternifolia (Maiden et Betche) Cheel
CAS Number	85085-48-9 / 68647-73-4
Description	100% Pure and Natural essential oil obtained by steam distillation of the leaves and terminal branchlets of Melaleuca alternifolia, of the Myrtaceae family.

2. TECHNICAL & SENSORY PROPERTIES

Appearance	Clear, mobile liquid
Colour	Colourless to pale yellow
Odour	Characteristic fresh, medicinal, warm, and spicy-woody aroma
Relative Density (20/20°C)	0.885 – 0.906
Refractive Index (20°C)	1.475 – 1.482
Optical Rotation (20°C)	+5° to +15°
Terpinen-4-ol Content	Minimum 35% – 48%
gamma-Terpinene Content	10% – 28%
alpha-Terpinene Content	Maximum 10% – 14%

3. APPLICATIONS & USES

Cosmetics & Personal Care	Widely incorporated into acne treatments, facial cleansers, shampoos for dandruff control, and clarifying skin formulations.
Pharmaceutical & Antiseptic	Renowned for its broad-spectrum antimicrobial, antifungal, and antiseptic properties in topical wound care and ointments.
Aromatherapy & Wellness	Valued for its cleansing, purifying, and invigorating properties in diffusion and holistic

	blends.
Household & Cleaning	Utilized in eco-friendly household cleaners, surface sprays, and laundry detergents for its natural sanitizing power.
Oral Hygiene	Incorporated into specialized mouthwashes and toothpastes for gum health and oral freshness (diluted use).

4. STORAGE, PACKAGING & SAFETY

Storage Conditions	Store in cool, dry place in tightly sealed containers, protected from heat, light, and oxidation.
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. For external use only. Dilute properly before direct skin application. Handle in well-ventilated areas.

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