



Lime (*Citrus aurantifolia*) Essential Oil – Benefits and Uses

Lime essential oil, derived from the peel of the key lime or Mexican lime (*Citrus aurantifolia*), offers a bright, fresh, zesty, and sweet-tart citrus aroma. It is energising, uplifting, and versatile, making it popular in aromatherapy, natural cleaning, skincare, hair care, and perfumery.

Extraction and Types Lime essential oil is primarily obtained by cold-pressing (expressed) or steam distillation of the fruit peel.

- **Cold-pressed:** Retains a more vibrant, true-to-fruit aroma but contains furanocoumarins, making it phototoxic (can cause skin burns, rash, or hyperpigmentation upon UV/sun exposure).
- **Steam-distilled:** Generally non-phototoxic and safer for topical use, though the aroma may be slightly less bright.

Choose steam-distilled for leave-on skincare products. Origin (e.g., Mexico, Sri Lanka, Italy) and fresh vs. dried peel can cause slight variations in aroma and composition.

Chemical Composition Main constituents include:

- **Limonene (40–65%):** Antioxidant, mood-supporting, cleansing.
- **γ -Terpinene and β -Pinene:** Antimicrobial, antioxidant, anti-inflammatory.
- **Others:** α -Pinene, sabinene, myrcene, terpinolene, citral (neral/geranial), linalool.

These monoterpenes contribute to its cleansing, refreshing, and therapeutic properties.

Key Benefits Benefits are based on traditional use, aromatherapy, and preliminary research (in vitro, animal, and limited human studies). Lime oil is not a substitute for medical treatment.

- **Mood & Energy:** Uplifting and energising; helps reduce fatigue, mental fog, stress, and emotional heaviness while boosting alertness, motivation, concentration, and optimism.
- **Antioxidant:** Strong free radical scavenging (DPPH/ABTS assays); may protect against oxidative stress.
- **Antimicrobial:** Effective against various bacteria (e.g., *S. aureus*, *E. coli*) and fungi; supports immune function and air/surface purification.
- **Skincare & Anti-Ageing:** Astringent; helps balance oily/acne-prone skin, reduce sebum, brighten complexion, and may inhibit elastase/collagenase enzymes linked to ageing.
- **Respiratory & Immune Support:** Clears airways, freshens air, and aids during colds/flu.
- **Other Potential Benefits:** Anti-inflammatory, hypolipidemic (improved cholesterol/lipids in animal studies), digestive comfort (aromatherapy for nausea/stress-related issues), analgesic for muscle relief, and insect-repellent properties.

Common Uses Aromatherapy & Diffusion Diffuse for a cheerful, energising atmosphere. Ideal for workspaces, mornings, or during illness. Blends well with other citrus, floral, herbal, woody, and spicy oils.

Skincare & Hair Care Diluted, it acts as a purifier and astringent for oily/congested skin, helps brighten dull complexions, controls oily scalp, adds shine to hair, and supports clearer-looking skin. Use in cleansers, toners, masks, shampoos, or spot treatments. Always patch test and avoid sun exposure with cold-pressed oil.





Household Cleaning Excellent natural degreaser and deodoriser. Use in surface sprays, laundry, kitchen cleaners, shoe/gym bag sprays, or rubbish bins. Cuts grease, removes residue, kills odours, and provides antimicrobial action.

Massage & Topical Diluted in carrier oil for uplifting massages, muscle relief, or circulation support. Steam-distilled is preferred for leave-on blends.

Other Uses

- Deodorising (rooms, linens, cars, pet bedding—avoid direct pet contact).
- Insect repellent (blend with citronella, eucalyptus, etc.).
- Oral care (highly diluted rinses).
- Perfumery and food flavouring (food-grade only).

Suggested Blends & Recipes Morning Energy Diffuser Blend

- 4 drops Lime
- 3 drops Lemon
- 2 drops Peppermint

Refreshing Diffuser Blend

- 3 drops Lime
- 3 drops Grapefruit
- 2 drops Cardamom

Congested Skin Tonic (20 ml jojoba)

- 1 drop Lime
- 1 drop Tea Tree
- 2 drops Lavender

Anxious Tummy Massage (20 ml carrier)

- 4 drops Lime
- 4 drops Coriander
- 2 drops Ginger

Uplifting Massage Blend (30 ml carrier, ~2.5% dilution)

- 6 drops Lime
- 5 drops Lavender
- 4 drops Frankincense

DIY Surface Cleaner

- 1 cup distilled water
- ½ cup white vinegar
- 1 tsp castile soap
- 15 drops Lime
- 10 drops Lemon
- 10 drops Tea Tree





Safety and Precautions

- **Phototoxicity:** Avoid sun/UV exposure for 12–18 hours after applying cold-pressed lime oil. Use steam-distilled for safer topical application.
- **Dilution:** 1–3% for topical use (lower for face/sensitive skin). Patch test always.
- **Irritation:** Can irritate skin or eyes; dilute properly. Avoid oxidised oils (citrus oils oxidise faster).
- **Internal Use:** Only food-grade oil under professional guidance.
- **Special Populations:** Consult a healthcare professional if pregnant, nursing, on medication, or using with children/elderly.
- **General:** Keep out of reach of children and pets. Toxic to aquatic life. Store in a cool, dark place; use within 12 months of opening.

Lime essential oil is an affordable, versatile favourite prized for its bright aroma, cleansing power, and ability to bring freshness and positivity into daily life. For therapeutic or internal use, always seek qualified professional advice.

