# Lemon Bio*

(*Citrus limon*)
*(Biologic/Eco-Cert Organic Essential Oil)
Stock #3908-2 (5 ml.)


Lemon essential oil is well-known for its antiseptic qualities and ability to effectively disinfect room air when used in a diffuser. A study conducted in France to determine which essential oils would purify and deodorize the air, destroying bacteria such as *Proteus*, *Staphylococcus aureus* and *Streptococcus pyogenes*, showed that lemon oil was among several vaporized oils that effectively destroyed 90% of microbes within 3 hours. In addition, German researchers tested the expectorant qualities of essential oils—an increase in secretions and an increased concentration of mucus in the secretions were evidence of an expectorant effect. Of the oils tested, lemon (as well as eucalyptus, pine and thyme) provided expectorant actions and effectively relieved dry, nervous coughs. Furthermore, positive results were only achieved through inhalation of the oils, even in very small amounts. In fact, the best results were achieved when minimal dosages were used for inhalation, producing only a very faint scent in the air—too high a dose changed the secretion-stimulating effect to a secretion-inhibiting effect.[1,2]

Lemon oil's antiseptic, bactericidal properties make it useful for treating a wide range of respiratory ailments, including contagious diseases such as colds and flus. According to recent research, the essential oil of *Citrus limon*, as well as the oils of *Eucalyptus globulus* and *Mentha piperita*, have been analyzed and found to be effective antibacterial agents against methicillin-resistant *Staphylococcus aureus* (MRSA). This antibiotic-resistant strain has been responsible for the rapid spread of infectious outbreaks around the world. In fact, a mutated form of MRSA was determined as the cause of the "flesh-eating bug" of 1994. Lemon oil can also be utilized as a gargle or mouthwash for treating gum and throat problems.[2,3]

Lemon oil is also commonly used for its antifungal effects. In fact, research dating as far back as 1927 shows that lemon oil destroyed yeast in less than one minute. This research involved 9 yeast-like organisms isolated from human infections—each infection quickly became yeast-negative, with no recurrence. More recent research has shown that the terpenoid citronellol, found in lemon oil—as well as eucalyptus, geranium, and rose oils—acts as a fungitoxic agent in vitro against *Cryptococcus neoformans*—an AIDS-related opportunistic infection.[2,4]

Extensive clinical data suggests that the essential oils of lemon (*Citrus limon*), lavender (*Lavandula angustifolia*), tea tree (*Melaleuca alternifolia*), or sweet thyme (*Thymus vulgaris*), diluted in distilled water and applied as a compress, can facilitate the mending of broken skin and be used to irrigate sores and wounds. In addition, topical application of lemon oil diluted in a carrier oil is recommended for treating canker sores.[2,5]

Lemon oil's refreshing aroma has been found to providing a gentle calming effect, while simultaneously evoking an uplifting and reviving effect on the psyche. A study published in the *Journal of Essential Oil Research* showed that the isolated aldehyde citronellal—found in lemon, geranium and rose oils—exhibits sedative properties. Citronellal is commonly identified for its important role in the aroma of the plant, and it also provides antifungal activity. However, lemon oil also contains limonene, another substance found to provide significant calming effects.[1-3]

Applied topically, lemon oil provides an astringent, toning action on the skin, which helps reduce puffiness and the appearance of wrinkles. Lemon oil is commonly used in formulas designed to tighten the skin and diminish cellulite.[1]

Lemon oil contains the chemical paracymene, which possesses analgesic properties that are especially beneficial for treating osteoarthritic pain.[2]

It is important to note that lemon oil contains the furanocoumarins bergapten and oxypeucedanin—substances that can cause a phototoxic effect when skin treated with lemon oil is exposed to ultraviolet light sources such as natural sunlight or tanning bed radiation. Skin reactions can vary from pigmentation of the skin to severe full-thickness burns. Furthermore, due to the oil's short shelf-life, lemon oil should be used within 6 months of purchase in order to avoid oxidation, which can cause irritation and sensitization.[2,6]

References:

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