Arborvitae *Thuja plicata*

Quick Facts

Botanical Family: Cupressaceae (conifer: cypress)

Extraction Method: Steam distillation from heartwood

Common Primary Uses*: Antibacterial, Antifungal, Calming, Cancer, Repellent

Common Application Methods‡:

: Dilute, and apply to reflex points or to area of concern.

: Diffuse into the air.

Chemical Constituents: Tropolones: α-thujaplicin, β-thujaplicin (hinokitiol), & γ-thujaplicin; methyl thujate, thujic acid, β-thujaplicinol.

Properties: Antibacterial, antifungal, antiseptic, anticancer, antitumor, astringent, expectorant, insect repellent, and stimulant (nerves, immune system, uterus, and heart muscles).

Historical Uses: The arborvitae, or western red cedar, has been referred to as the "Tree of Life." It has been used by ancient civilizations to enhance their potential for spiritual communication during rituals and other ceremonies. It has also been used for coughs, fevers, intestinal parasites, cystitis, and venereal diseases.

Other Possible Uses: This oil may help with hair loss, skin (nourishing), rheumatism, sunscreen, warts, and psoriasis. It has powerful effects on the subconscious and unconscious mind.

Body System(s) Affected: Emotional Balance, Respiratory System, Skin.

Aromatic Influence: It is calming and may help enhance spiritual awareness or meditation.

Oral Use As Dietary Supplement: None.

Safety Data: Use with caution during pregnancy. For topical and aromatic use only. Use sparingly and dilute.

Blend Classification: Enhancer and Equalizer.

Blends With: Birch, cedarwood, cassia, eucalyptus.

Odor: Type: Top to Middle Notes (10–20% of the blend); Scent: Intense, medicinal, woody, earthy; Intensity: 5.

Additional Research:

Anticancer Properties: Hinokitiol was found to induce autophagic signaling in murine breast and colorectal tumor cells in vitro (Wang et al., 2014).

Anticancer Properties: Mice implanted with human colon cancer tumor cells saw a decrease in tumor size and weight when treated with β-thujaplicin (hinokitiol) (Lee et al., 2013).

Anticancer Properties: Hinokitiol demonstrated inhibition of cell growth and DNA synthesis in human melanoma cells in vitro (Liu et al., 2009).

Antibacterial: *Thuja plicata* displayed antibacterial activity against two Gram-positive (*Staphylococcus aureus* and *S. epidermidis*) and four Gram-negative bacteria (*Escherichia coli*, *Enterobacter cloacae*, *Klebsiella pneumonia*, and *Pseudomonas aeruginosa*) in vitro (Tsiri et al., 2009).

Antibacterial: Arborvitae essential oil vapor and liquid displayed bactericidal activity against seven bacteria (including three Gram-positive organisms, *Bacillus subtilis*, *Streptococcus pyogenes*, and *Enterococcus fecalis*, and four Gram-negative organisms, *Acinetobacter baumannii*, *Hemophilus influenzae*, *Salmonella enteritidis*, and *Escherichia coli*) as well as the bacterial spores of *Bacillus subtilis* (Hudson et al., 2011).

Antifungal: *Thuja plicata* displayed antifungal activity against three pathogenic fungi (*Candida albicans*, *C. tropicalis*, and *C. glabrata*) in vitro (Tsiri et al., 2009).

Antifungal: Arborvitae essential oil vapor and liquid displayed antifungal activity against two commonly encountered fungi (the medically important yeast *Candida albicans* and the filamentous mold *Aspergillus niger*) (Hudson et al., 2011).

Sunscreen: Application of β-thujaplicin on mouse ear skin decreased sunburn cell formation by 40% as compared to untreated skin, suggesting that β-thujaplicin can inhibit ultraviolet B-induced apoptosis and skin damage (Baba et al., 1998).

‡See Application section beginning on page 42 for more details on applying essential oils. =Topical, =Aromatic, =Internal