



## THUJA

- Date:** April 25, 2008
- Proper name(s):** *Thuja occidentalis* L. (Cupressaceae) (USDA 2007)
- Common name(s):** Thuja (McGuffin et al. 2000)
- Source material(s):** Aerial parts (BHP 1983; Felter and Lloyd 1983 [1898])
- Route(s) of administration:** Oral, topical
- Dosage form(s):** Those suited to the allowable route(s) of administration.  
This monograph does not apply to products for use on mucous membranes.  
This monograph is not intended to include food-like dosage forms such as bars, chewing gums or beverages.
- Use(s) or Purpose(s):** Statement(s) to the effect of:
- Oral: Traditionally used in Herbal Medicine as an expectorant to help relieve bronchial catarrh (Hoffmann 2003; Williamson 2003; BHP 1983; Felter and Lloyd 1983 [1898]).
- Topical:
- ▶ Traditionally used in Herbal Medicine to help remove warts on the hands and feet (Hoffmann 2003; Williamson 2003; BHP 1983; Felter and Lloyd 1983 [1898]).
  - ▶ Used in Herbal Medicine to help relieve fungal infections (Williamson 2003) such as ringworm (Hoffmann 2003).
- Dose(s):**
- Oral: Preparations equivalent to 1-2 g dried aerial parts, 3 times per day (Williamson 2003; BHP 1983)
- Topical: Preparations equivalent to 0.1-2 g dried aerial parts, 3 times per day (Hoffmann 2003; BHP 1983)

**Directions for use:** Apply to affected area(s).  
See Appendix 1 for examples of appropriate dosage preparations, frequencies of use and directions for use, according to cited references. The purpose of Appendix 1 is to provide guidance to industry.

**Duration of use:**

Oral: For occasional use only (Brinker 2001; McGuffin 1997)

**Risk information:** Statement(s) to the effect of:

**Caution(s) and warning(s):**

All routes of administration: Consult a health care practitioner if symptoms persist or worsen.

Oral:

- ▶ Consult a health care practitioner prior to use if you are breastfeeding (Brinker 2008).
- ▶ Consult a health care practitioner prior to use if you are taking other herbs containing thujone (e.g. wormwood, sage, tansy, and juniper) (Reitjens et al. 2005; Hoffmann 2003).

Topical: Consult a healthcare practitioner prior to use if you have diabetes or poor blood circulation (Berardi et al. 2002).

**Contraindication(s):**

Oral: Do not use if you are pregnant (Hoffmann 2003; Brinker 2001; BHP 1983).

**Known adverse reaction(s):** No statement required.

**Non-medicinal ingredients:** Must be chosen from the current NHPD *List of Acceptable Non-medicinal Ingredients* and must meet the limitations outlined in the list.

**Specifications:** Must comply with the minimum specifications outlined in the current NHPD *Compendium of Monographs*.

## References cited:

Berardi RR, DeSimone EM, Newton GD, Oszko MA, Popovich NG, Rollins CJ, Shimp LA, Tietze KJ, editors. Handbook of Nonprescription Drugs: An Interactive Approach to Self-Care, 13<sup>th</sup> edition. Washington (DC): American Pharmaceutical Association; 2002.

BHP 1983: British Herbal Pharmacopoeia. Cowling (UK): British Herbal Medical Association; 1983.

Brinker F. Online Updates and Additions to Herb Contraindications and Drug Interactions, 3<sup>rd</sup> edition. Sandy (OR): Eclectic Medical Publications; 2008. [Accessed 2008-04-25]. Available from: <http://www.eclecticherb.com/emp/updatesHCIDI.html>

Brinker F. Herb Contraindications and Drug Interactions, 3<sup>rd</sup> edition. Sandy (OR): Eclectic Medical Publications; 2001.

Felter HW, Lloyd JU. King's American Dispensatory, Volume 2, 18<sup>th</sup> edition. Sandy (OR): Eclectic Medical Publications; 1983 [Reprint of 1898 original].

Hoffmann D. Medical Herbalism. Rochester (VT): Healing Arts Press; 2003.

McGuffin M, Hobbs C, Upton R, Goldberg A, editors. American Herbal Products Association's Botanical Safety Handbook. Boca Raton (FL): CRC Press; 1997.

McGuffin M, Kartesz JT, Leung AY, Tucker AO, editors. Herbs of Commerce, 2<sup>nd</sup> edition. Silver Spring (MD): American Herbal Products Association; 2000.

Rietjens IM, Martena MJ, Boersma MG, Spiegelberg W, Alink GM. Molecular mechanisms of toxicity of important food-borne phytotoxins. *Molecular Nutrition & Food Research* 2005;49(2):131-158.

USDA 2007: ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN). *Thuja occidentalis* L. National Germplasm Resources Laboratory, Beltsville (MD). [Accessed 2008-04-25]. Available from: [http://www.ars-grin.gov/cgi-bin/npgs/html/tax\\_search.pl](http://www.ars-grin.gov/cgi-bin/npgs/html/tax_search.pl)

Williamson EM. Potter's Herbal Cyclopaedia: The Authoritative Reference work on Plants with a Known Medical Use. Saffron Walden (UK): The C.W. Daniel Company Limited; 2003.

## References reviewed:

Burkhard PR, Burkhardt K, Haenggeli CA, Landis T. Plant-induced seizures: reappearance of an old problem. *Journal of Neurology* 1999; 246(8):667-670.

Stafstrom CE. Seizures in a 7-month-old child after exposure to the essential plant oil thuja. *Pediatric Neurology* 2007;37(6):446-448.

EC-SCF 2003: European Commission Scientific Committee on Food. Opinion of the Scientific Committee on Thujone. Brussels (B): European Commission Health and Consumer Protection Directorate-General. Scientific Committee on Food. Scientific Committee on Thujone; February 6, 2003, pp. 1–11. [Accessed 2008-04-25]. Available at: [www.ec.europa.eu/food/fs/sc/scf/out162\\_en.pdf](http://www.ec.europa.eu/food/fs/sc/scf/out162_en.pdf)

EEC 1988: European Economic Committee. Council Directive 88/388/EEC on the approximation of the laws of the Member States relating to flavourings for use in foodstuffs and to source materials for their production. Brussels (B): European Economic Committee Council Directive 88/388/EEC of 22 June 1988. [Accessed 2008-04-25]. Available at: [ec.europa.eu/food/fs/sfp/addit\\_flavor/flav09\\_en.pdf](http://ec.europa.eu/food/fs/sfp/addit_flavor/flav09_en.pdf)

**Appendix 1:** Examples of appropriate dosage preparations, frequencies of use and directions for use

**Oral:**

Dried aerial parts: 1-2 g, 3 times per day (Williamson 2003; BHP 1983)

Infusion: 1-2 g dried aerial parts, 3 times per day (Williamson 2003; BHP 1983)

**Directions for use:** Pour 250 ml of boiling water over dried aerial parts and steep for 10-15 minutes (Hoffmann 2003).

**Topical:**

Fluidextract: 2 g dried equivalent, 3 times per day  
(1:1, 50% alcohol, 2 ml) (BHP 1983)

Tincture:

- ▶ 0.2-0.4 g dried equivalent, 3 times per day  
(1:5, 60% alcohol, 1-2 ml) (Hoffmann 2003)
- ▶ 0.1-0.2 g dried equivalent, 3 times per day  
(1:10, 60% alcohol, 1-2 ml) (BHP 1983)

**Directions for use:** Apply to affected area(s).