

Natural Health Products Ingredients Database

Monograph: Curcumin

This monograph is intended to serve as a guide to industry for the preparation of Product Licence Applications (PLA) and labels for natural health product market authorization. It is not intended to be a comprehensive review of the medicinal ingredient. It is a referenced document to be used as a labelling standard. Note: Text in parentheses is additional optional information which can be included on the PLA and product labels at the applicant's discretion. The solidus (/) indicates that the terms are synonyms or that the statements are synonymous. Either term or statement may be selected by the applicant.

Date: 2010-02-26

NHPID Name

Curcumin (O'Neil et al. 2006)

Proper Name(s)

(1E,6E)-1,7-Bis(4-hydroxy-3-methoxyphenyl)-1,6-heptadiene-3,5-dione (O'Neil et al. 2009)

Common Name(s)

Curcumin (Goel et al. 2008, Boon and Smith 2004, Deodhar et al. 1980)

Route Of Administration

Oral

Dosage Form(s)

The acceptable pharmaceutical dosage forms suited to oral administration include, but are not limited to, chewables (e.g. gummies, tablets), caplets, capsules, strips, lozenges, powders or liquids where the dose is measured in drops, teaspoons or tablespoons. This monograph is not intended to include foods or food-like dosage forms such as bars, chewing gums or beverages.

Use(s) or Purpose(s)

Statement(s) to the effect of:

Provides antioxidants for the maintenance of good health. (ESCOP 2003, Blumenthal M et al. 2000, Mills and Bone 2000)

Used in Herbal Medicine to help relieve joint inflammation. (Mills and Bone 2000, Deodhar et al. 1980)

Dose(s)

Adults:

Antioxidant

Dose(s): not to exceed 400 Milligrams 3 times per day (Deodhar et al. 1980)

Relief of joint inflammation

Dose(s): 400 Milligrams 3 times per day (Boon and Smith 2004, Deodhar et al. 1980)

Duration of use

No statement is required

Risk Information

Statement(s) to the effect of:

Caution(s) and Warning(s)

- Consult a health care practitioner prior to use if you are pregnant. (ESCOP 2003, Brinker 2001, McGuffin et al. 1997)
- Consult a health care practitioner prior to use if you are taking antiplatelet medication or blood thinners (Mills and Bone 2005, Brinker 2001)
- Consult a health care practitioner prior to use if you have gallstones or a bile duct obstruction. (ESCOP 2003, Brinker 2001, McGuffin et al. 1997)
- Consult a health care practitioner prior to use if you have stomach ulcers or excess stomach acid. (Brinker 2001, McGuffin et al. 1997)
- **Relief of joint inflammation:**
Consult a health care practitioner if symptoms persist or worsen.

Contraindication(s)

No statement is required

Known Adverse Reaction(s)

No statement is required

Non-medicinal ingredients

Must be chosen from the current Natural Health Products Ingredients Database and must meet the limitations outlined in the database.

Specifications

- The finished product must comply with the minimum specifications outlined in the current NHPD Compendium of Monographs.
- The medicinal ingredient may comply with the specifications outlined in the Curcuminoids, Curcuminoids Capsules and Curcuminoids Tablets monographs published in the United States Pharmacopeia (USP 32).

References cited

- Blumenthal M, Goldberg A, Brinkmann J, editors. 2000. Herbal Medicine: Expanded Commission E Monographs. Boston (MA): Integrative Medicine Communications.
- Boon H, Smith M. 2004. The Complete Natural Medicine Guide to the 50 Most Common Medicinal Herbs. Toronto (ON): Robert Rose Inc.
- Brinker F. 2001. Herb Contraindications and Drug Interactions, 3rd edition. Sandy (OR): Eclectic Medical Publications.
- Deodhar SD, Sethi R, Srimal RC. 1980. Preliminary studies on antirheumatic activity of curcumin (di-feruloyl methane). Indian Journal of Medical Research 71:632-634.
- ESCOP 2003: ESCOP Monographs: The Scientific Foundation for Herbal Medicinal Products, 2nd edition. 2003. Exeter (GB): European Scientific Cooperative on Phytotherapy and Thieme.
- Goel A, Kunnumakkara AB, Aggarwal BB. 2008. Curcumin as "Curecumin": From kitchen to clinic. Biochemical Pharmacology 75:787-809.
- McGuffin M, Hobbs C, Upton R, Goldberg A, editors. 1997. American Herbal Products Association's Botanical Safety Handbook. Boca Raton (FL): CRC Press
- Mills E, Dugoua J, Perri D, Koren G. 2006. Herbal Medicines in Pregnancy and Lactation: An Evidence-Based Approach. London (GB): Taylor and Francis Medical.
- Mills S, Bone K. 2000. Principles and Practice of Phytotherapy. Toronto (ON): Churchill Livingstone.
- Mills S, Bone K. 2005. The Essential Guide to Herbal Safety. St. Louis (MO): Elsevier Churchill Livingstone.
- O'Neil MJ, Heckelman PE, Koch CB, Roman KJ, editors. 2009. The Merck Index: An Encyclopedia of Chemicals, Drugs, and Biologicals, 14th edition. Electronic version [online]. Whitehouse Station (NJ): Merck & Co., Inc. [Accessed 2009 November 27]. Available at: <http://www.medicinescomplete.com/mc/merck/current/monographs.htm>
- USP 32: United States Pharmacopeial Convention. 2009. United States Pharmacopeia and the National Formulary (USP 32 - NF 27). Rockville (MD): The United States Pharmacopeial Convention.

References reviewed

- Araújo CA, Leon LL. 2001. Abstract: Biological activities of *Curcuma longa* L. Mem Inst Oswaldo Cruz 96(5):723-728
- Felter HW, Lloyd JU. 1983. King's American Dispensatory, Volume 2, 18th edition. Sandy (OR): Eclectic Medical Publications [Reprint of 1898 original].
- Felter HW. 1983. The Eclectic Materia Medica, Pharmacology and Therapeutics. Sandy (OR): Eclectic Medical Publications [Reprint of 1922 original].
- Funk JL, Oyarzo JN, Frye JB, Chen G, Lantz RC, Jolad SD, Sólyom AM, Timmermann BN. 2006. Turmeric extracts containing curcuminoids prevent experimental rheumatoid arthritis. Journal of Natural Products 69(3):351-355.

- Gerard J. 1975. *The Herbal or General History of Plants. The Complete 1633 Edition as Revised and Enlarged by Thomas Johnson.* NY (NY): Dover Publications.
- Grieve M. 1971. *A Modern Herbal, Volume 2.* New York (NY): Dover Publications [Reprint of 1931 Harcourt, Brace & Company publication].
- Hatcher H, Planalp R, Cho J, Torti FM, Torti SV. 2008. curcumin: From ancient medicine to current clinical trials. *Cellular and Molecular Life Sciences* 65:1631-1652.
- Hoffmann D. 2003. *Medical Herbalism: The Science and Practice of Herbal Medicine.* Rochester (VT): Healing Arts Press.
- Jurenka JS. 2009. Anti-inflammatory properties of curcumin, a major constituent of *Curcuma longa*: a review of preclinical and clinical research. *Alternative Medicine Review* 14(2):141-153.
- Khory RN, Katrak NN. 1999. *Materia Medica of India and their Therapeutics.* Delhi (IN): Komal Prakashan.
- Kiso Y, Suzuki Y, Watanabe N, Oshima Y, Hikino H. 1983. Antihepatotoxic principles of *Curcuma longa* rhizomes. *Journal of Medicinal Plant Research* 49:185-187
- Kohli K, Ali J, Ansari J, Raheman Z. 2005. Curcumin: a natural antiinflammatory agent. *Indian Journal of Pharmacology* 37(3):141-147.
- Kulkarni RR, Patki PS, Jog VP, Gandage SG, Patwardhan B. 1991. Treatment of osteoarthritis with a herbomineral formulation: a double-blind, placebo-controlled, cross-over study. *Journal of Ethnopharmacology* 33:91-95.
- Mills S. 1985. *The Dictionary of Modern Herbalsim.* Wellingborough (GB): Thorsons Publishers Ltd.
- Moerman DE. 1998. *Native American Ethnobotany.* Portland (OR): Timber Press.
- Rivera-Espinoza Y, Muriel P. 2009. Pharmacological actions of curcumin in liver diseases or damage. *Liver International* 29(10):1457-1466.
- Satoskar RR, Shah SJ, Shenoy SG. 1986. Evaluation of anti-inflammatory property of curcumin (diferuloyl methane) in patients with postoperative inflammation. *International Journal of Clinical Pharmacology, Therapy and Toxicology* 24(12):651-654.
- Srimal R, Dhawan B. 1973. Pharmacology of diferuloyl methane (curcumin), a non-sterodal anti-inflammatory agent. *Journal of Pharmacy and Pharmacology* 25:447-452.