

## TURMERIC

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:** February 26, 2010
- Proper name(s):** *Curcuma longa* L. (Zingiberaceae) (USDA 2008)
- Common name(s):** Turmeric (McGuffin et al. 2000)
- Source material(s):** Rhizome (PPRC 2005; ESCOP 2003; Blumenthal et al. 2000)
- Route(s) of administration:**
- ▶ Oral (ESCOP 2003; Blumenthal et al. 2000)
  - ▶ Topical (Paranjape 2005; Williamson 2002)
- 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.
  - ▶ The acceptable dosage forms suited to topical administration.
- Use(s) or Purpose(s):** Statement(s) to the effect of:

Oral:

- ▶ Provides antioxidants for the maintenance of good health (ESCOP 2003; Blumenthal et al. 2000; Mills and Bone 2000).
- ▶ Used in Herbal Medicine to aid digestion (ESCOP 2003; Williamson 2003; Blumenthal et al. 2000; Mills and Bone 2000).
- ▶ (Traditionally) used in Herbal Medicine to help relieve flatulent dyspepsia (carminative) (Mills and Bone 2005; Blumenthal et al. 2000; Wren 1907).
- ▶ Used in Herbal Medicine as a hepatoprotectant/liver protectant (Boon and Smith 2004; Williamson 2003).
- ▶ Used in Herbal Medicine to increase bile excretion by the liver (choleric) and stimulate contraction of the gallbladder (cholagogue) (Mills and Bone 2005; Boon and Smith 2004; Wichtl 2004; Williamson 2002; Blumenthal et al. 2000; Mills and Bone 2000).
- ▶ (Traditionally) used in Herbal Medicine as an anti-inflammatory (Winston and Kuhn 2008; WHO 1999) to help relieve joint pain (Blumenthal et al. 2000; WHO 1999).
- ▶ Used in Traditional Chinese Medicine (TCM) to eliminate blood stasis, promote the flow of qi, relieve pain of menstruation due to blood stasis (PPRC 2005).

Oral and/or topical: Traditionally used in Ayurveda to relieve pain and inflammation, and assist healing of minor wounds such as cuts and burns, and minor skin irritations (Paranjape 2005; Murthy 2004; API 2001; Kapoor 2001).

**Dose(s):**

Oral:

Antioxidant: Preparations providing up to 9 g of dried rhizome, per day (ESCOP 2003; Williamson 2003; Blumenthal et al. 2000)

Other uses, except TCM and Ayurveda:

Preparations equivalent to 1-9 g dried rhizome, per day (Mills and Bone 2005; Wichtl 2004; ESCOP 2003; Williamson 2003; Blumenthal et al. 2000).

If potencies are declared, the only acceptable potencies are: 3-5% curcuminoids (USP 32; Mills and Bone 2005; Wichtl 2004)

TCM: 3-9 g dried rhizome, per day (PPRC 2005; Bensky and Gamble 1993),  
**Directions for use:** Prepare dried rhizome as a decoction (PPRC 2005)

Oral and/or Topical:

Ayurveda: 1-4 g dried rhizome powder, per day (Williamson 2002; API 2001; Kapoor 2001)  
**Directions for use (topical):** Apply to affected area as needed.

See Appendix 1 for examples of 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:** No statement required.

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

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

For all products except for Antioxidants:

- ▶ Consult a health care practitioner if symptoms persist or worsen.

Oral:

- ▶ 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).
- ▶ Consult a health care practitioner prior to use if you are pregnant (ESCOP 2003; Brinker 2001; McGuffin et al. 1997).

**Contraindication(s):** No statement required.

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

**Non-medicinal ingredients:** Must be chosen from the current NHPD *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 Turmeric, Powdered Turmeric Monographs published in the United States Pharmacopeia (USP 32).

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

### Oral:

#### Powdered dried rhizome:

- ▶ 1-4 g, per day (Mills and Bone 2005; Williamson 2003; Kapoor 2001)
- ▶ 0.5-1 g, several times per day, between meals (Wichtl 2004)
- ▶ 1.5-3 g, per day (ESCOP 2003)
- ▶ 1-3 g, per day (API 2001)

Cut rhizome: 1.5-3 g, per day (Blumenthal et al. 2000)

#### Infusion:

- ▶ 3-9 g dried rhizome, per day (Mills and Bone 2005)
- ▶ 1.3 g dried rhizome, 2 times per day (Blumenthal et al. 2000)

**Directions for use:** Pour 150 ml of boiling water on dried rhizome and steep for 10 to 15 minutes (Blumenthal et al. 2000).

Fluidextract: 1.5-3 g dried equivalent, per day  
(1:1, 1.5-3 ml) (Blumenthal et al. 2000)

Tincture: 2 g dried equivalent, per day  
(1:5, 10 ml) (Blumenthal et al. 2000)

TCM: 3-9 g dried rhizome, per day (PPRC 2005; Bensky and Gamble 1993)

**Directions for use:**

Prepare dried rhizome as a decoction (PPRC 2005).

### Oral and/or topical:

#### Ayurveda:

- ▶ 1-4 g dried rhizome powder, per day (Williamson 2002)
- ▶ 1-3 g dried rhizome powder, per day (API 2001)
- ▶ 1-4 g dried rhizome powder, per day (Kapoor 2001)

**Directions for use (topical):**

Apply to affected area as needed.