HOPS

Date: February 12, 2008

Proper name(s): *Humulus lupulus* L. (Cannabaceae) (USDA 2006)

Common name(s): Hops (McGuffin et al. 2000; Bradley 1992)

Source material(s): Female inflorescence (strobile) (Mills and Bone 2005; Blumenthal et al. 2000; Bradley 1992)

Route(s) of administration: Oral

Dosage form(s): Those suited to the allowable routes of administration. 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:

- Traditionally used in Herbal Medicine to help relieve nervousness (sedative and/or calmative) (EMEA 2007; Mills and Bone 2005; ESCOP 2003; Hoffmann 2003; Blumenthal et al. 2000; Bradley 1992; Grieve 1971 [1931]).
- Traditionally used in Herbal Medicine as a sleep aid (hypnotic) (EMEA 2007; Mills and Bone 2005; ESCOP 2003; Hoffmann 2003; Blumenthal et al. 2000; Bradley 1992; Felter and Lloyd 1983 [1898])
- Traditionally used in Herbal Medicine as an aromatic bitter to aid digestion and to increase appetite (stomachic) (Mills and Bone 2005; Bradley 1992; Grieve 1971 [1931]).

Dose(s):

Subpopulation: Adults, adolescents, and children ≥ 12 years (EMEA 2007; ESCOP 2003)
Quantity: Preparations equivalent to 0.5-6 g dried strobile, per day (EMEA 2007; Mills and Bone 2005; ESCOP 2003; Hoffmann 2003; Blumenthal et al. 2000; Bradley 1992)

Directions for use (for sleep aid):
Take one dose before bed time (EMEA 2007; Hoffmann 2003; Bradley 1992)

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: No statement required.

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

Caution(s) and warning(s):

Sleep aid: Consult a health care practitioner if sleeplessness persists continuously for more than 3 weeks (chronic insomnia) (Berardi et al. 2002; Dipiro et al. 2002).

All uses:
- Consult a health care practitioner if symptoms persist or worsen.
- Consumption with alcohol, other medications and/or natural health products with sedative properties is not recommended (Brinker 2007).
- Consult a health care practitioner prior to use if you have depression and/or related diseases (Brinker 2001; McGuffin et al. 1997).
- Consult a health care practitioner prior to use if you are pregnant or breastfeeding (Barnes et al. 2007; Brinker 2007; Mills and Bone 2005).

Contraindication(s): No statement required.

Known adverse reaction(s): Some people may experience drowsiness. Exercise caution if operating heavy machinery, driving a motor vehicle or involved in activities requiring mental alertness (EMEA 2007).
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:

- 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 Hop Strobile Monographs published in the European or British Pharmacopoeias.

References cited:


Felter HW, Lloyd JU. King’s American Dispensatory, Volume 1, 18th edition. Sandy (OR): Eclectic Medical Publications; 1983 [Reprint of 1898 original].


References reviewed:


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

Dried strobile:
- 1.5-3 g, per day (Mills and Bone 2005)
- 0.5 g, per day (EMEA 2007; Blumenthal et al. 2000)
- 0.5-1 g, 1 to 4 times per day (Bradley 1992)

**Directions for use:** Take one dose before bedtime (Bradley 1992)

Infusion:
- 0.5-2 g dried strobile, per day (EMEA 2007)
- 1.5-3 g dried strobile, per day (Mills and Bone 2005)
- 0.5 g dried strobile, 2 to 4 times per day (ESCOP 2003)
- 0.5 g dried strobile, per day (Hoffmann 2003)
- 0.5 g cut or powdered strobile, per day (Blumenthal et al. 2000)
- 0.5-1 g dried strobile, 1 to 4 times per day (Bradley 1992)

**Directions for use:** Pour 250 ml (1 cup) of boiling water over dried strobile and infuse in a covered container for 10 to 15 minutes (Hoffmann 2003). A cup should be drunk before bedtime to induce sleep (EMEA 2007; Hoffmann 2003; Bradley 1992).

0.5 g = 1 tsp (Hoffman 2003)

Fluidextract:
- 0.5-2 g dried equivalent, per day (1:1, 45% ethanol, 0.5-2 ml) (EMEA 2007)
- 1.5-3 g dried equivalent, per day (1:1, 1.5-3 ml per day) (Mills and Bone 2005)
- 0.5-2 g dried equivalent, 1-3 times per day (1:1, 45% ethanol, 0.5-2 ml) (ESCOP 2003)
- 0.5 g dried equivalent, per day (1:1, 0.5 ml per day) (Blumenthal et al. 2000)
- 0.5-1 g dried equivalent, 1-4 times, per day (1:1, 45% ethanol, 0.5-1 ml) (Bradley 1992)

**Directions for use:** Take one dose before bedtime (Bradley 1992)

Tincture:
- 0.2-0.4 g dried equivalent, per day (1:5, 60% ethanol, 1-2 ml) (EMEA 2007)
- 0.75-1.5 g dried equivalent, per day (1:2, 1.5-3 ml) (Mills and Bone 2005)
- 0.6-1.2 g dried equivalent, per day (1:5, 3-6 ml per day) (Mills and Bone 2005)
- 0.2-0.4 g dried equivalent, 1-3 times per day
(1:5, 60% ethanol, 1-2 ml) (ESCOP 2003)

- 0.2-0.8 g dried equivalent, 3 times per day
(1:5, 40% alcohol, 1-4 ml) (Hoffmann 2003)
- 0.5 g dried equivalent, per day
(1:5, 2.5 ml per day) (Blumenthal et al. 2000)
- 0.2-0.4 g dried equivalent, 1-4 times per day
(1:5, 60% ethanol, 1-2 ml) (Bradley 1992)

**Directions for use:** Take one dose before bed time (Bradley 1992)

**Solid extract:**

0.36-0.64 g dried equivalent, per day
(6-8:1, 60-80 mg) (Blumenthal et al. 2000)