Cassia - Cinnamomum aromaticum

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CASSIA - CINNAMOMUM AROMATICUM (PDF Version - 159 KB) This monograph is intended to serve as a guide to industry for the preparation of Product Licence Applications (PLAs) and labels for natural health product market authorization. It is not intended to be a comprehensive review of the medicinal ingredient. Notes Text in parentheses is additional optional information which can be included on the label at the applicant's discretion. The solidus (/) indicates that the terms and/or statements are synonymous. Either term or statement may be selected by the applicant on the label. Date May 30, 2025 Proper name(s), Common name(s), Source information Table 1. Proper name(s), Common name(s), Source information Proper name(s) Common name(s) Source information Source material(s) Part(s) Preparation(s) Cinnamomum aromaticum Cassia Cassia cinnamon Chinese cinnamon Chinese cinnamon tree Rou Gui Cinnamomum aromaticum Branch bark Stem bark Trunk bark Dry References: Proper name: USDA 2024; Gardner and McGuffin 2013; Common name: USDA 2024; Gardner and McGuffin 2013; Brinker 2010; Chen and Chen 2004; Blumenthal et al. 2000; Source information: PPRC 2020; Crawford 2009; BHC 2006; Mang et al. 2006; Bensky et al. 2004; Chen and Chen 2004; Khan et al. 2003; Blumenthal et al. 2000,1998. Route of administration Oral Dosage form(s) This monograph excludes foods or food-like dosage forms as indicated in the Compendium of Monographs Guidance Document. Acceptable dosage forms for oral use are indicated in the dosage form drop-down list of the web-based Product Licence Application form for Compendial applications. Use(s) or Purpose(s) Branch bark, Stem bark or Trunk bark Helps to support/maintain healthy blood glucose levels (Davis and Yokoyama 2011; Crawford 2009; Mang et al. 2006). Source of antioxidants/Provides antioxidants (Gruenwald et al. 2010; Roussel et al. 2009; Halvorsen et al. 2006; Shan et al. 2005). Source of antioxidants/Provides antioxidants that help fight/protect (cell) against/reduce (the oxidative effect of/the oxidative damage caused by/cell damage caused by) free radicals (Gruenwald et al. 2010; Roussel et al. 2009; Halvorsen et al. 2006; Shan et al. 2005). (Traditionally) used in Herbal Medicine for digestive disturbances/dyspeptic complaints/indigestion (such as mild spasms of the gastrointestinal tract, bloating and flatulence) (BHC 2006; Blumenthal et al. 2000, 1998). (Traditionally) used in Herbal Medicine for loss of appetite (BHC 2006; Blumenthal et al. 2000, 1998). Trunk bark only Used in Traditional Chinese Medicine (TCM) to dispel cold, relieve pain, open channels and collaterals (Bensky et al. 2004; Chen and Chen 2004). Used in Traditional Chinese Medicine (TCM) to dispel cold, warm the spleen and relieve pain (PPRC 2020; Bensky et al. 2004; Chen and Chen 2004). Used in Traditional Chinese Medicine (TCM) to encourage production of qi and blood (Bensky et al. 2004; Chen and Chen 2004). Used in Traditional Chinese Medicine (TCM) to tonify kidney yang and augment ming men (life gate) fire (PPRC 2020; Bensky et al. 2004; Chen and Chen 2004). Notes The above uses can be combined on the product label if from the same traditional or non-traditional system of medicine (e.g., Used in Traditional Chinese Medicine to encourage production of qi and blood, tonify kidney yang and augment ming men fire). For multi-ingredient products: To prevent the product from being represented as a “traditional medicine”, any indicated traditional use claim must refer to the specific medicinal ingredient(s) and recognized traditional system of medicine from which the claim originates when 1) both traditional and modern claims are present or 2) when claims originate from multiple systems of traditional medicine (e.g., Cassia is traditionally used in Herbal Medicine for loss of appetite). When ALL of the medicinal ingredients (MIs) in the product are used within the SAME identified system of traditional medicine AND the product makes ONLY traditional claims, listing of MIs in the traditional claim(s) is not required. Dose(s) Subpopulation(s) Adults 18 years and older Quantity(ies) Branch bark, Stem bark or Trunk bark Methods of preparation: Dry, Powdered, Non-Standardized Ethanolic Extracts (Dry extract, Tincture, Fluid extract) Antioxidant Not to exceed 6 grams of dried branch bark, stem bark and/or trunk bark, per day and 4 grams per single dose (Gruenwald et al. 2010; Roussel et al. 2009; Halvorson et al. 2006; Shan et al. 2005). Appetite loss; Digestive disturbances/Indigestion 1 - 6 grams of dried branch bark, stem bark and/or trunk bark, per day; Not to exceed 4 grams per single dose (Gruenwald et al. 2010; Al Jamal et al. 2009; Crawford 2009; Mang et al. 2006; Safdar et al. 2004; Khan et al. 2003). Healthy glucose 3 - 6 grams of dried branch bark, stem bark and/or trunk bark, per day; Not to exceed 4 grams per single dose (Davis and Yokoyama 2011; Gruenwald et al. 2010; Crawford 2009; Mang et al. 2006). Trunk bark only Traditional Chinese Medicine claims Method of preparation: Decoction, Decoction concentrate 2 - 5 grams

of dried trunk bark, per day (PPRC 2020; Bensky et al. 2004; Chen and Chen 2004). Methods of preparation: Dry, Powdered, Non-Standardized Ethanolic Extracts (Dry extract, Tincture, Fluid extract) 1 - 2 grams of dried trunk bark, per day (PPRC 2020; Bensky et al. 2004; Chen and Chen 2004). Direction(s) for use Appetite loss (For appetite loss)*, take 30 minutes before meals. Digestive disturbances/Indigestion (For digestive disturbances)*, take with a meal/food (Crawford 2009). *Note: Information in brackets is required on the label when both uses for appetite loss and digestive disturbances are listed on the label. Duration(s) of use Products providing 4 - 6 g of branch bark, stem bark and/or trunk bark, per day Ask a health care practitioner/health care provider/health care professional/doctor/physician for use beyond 6 weeks (Safdar et al. 2004; Khan et al. 2003). Risk information Caution(s) and warning(s) Appetite loss; Digestive disturbances/Indigestion; Traditional Chinese Medicine claims Ask a health care practitioner/health care provider/health care professional/doctor/physician if symptoms persist or worsen. Products providing 1 g or more of branch bark, stem bark and/or trunk bark, per day Ask a health care practitioner/health care provider/health care professional/doctor/physician before use if you are breastfeeding (Blumenthal et al. 2000; WHO 1999). Ask a health care practitioner/health care provider/health care professional/doctor/physician before use if you have diabetes (Gardner and McGuffin 2013; Brinker 2010). Contraindication(s) Products providing 1 g or more of branch bark, stem bark and/or trunk bark, per day Do not use if you are pregnant (PPRC 2020; Brinker 2010; BHC 2006; Chen and Chen 2004; Blumenthal 2000, 1998). Traditional Chinese Medicine claims Do not use if you have excess heat, blood heat or deficiency, or yin-deficient fire (PPRC 2020; Bensky et al. 2004; Chen and Chen 2004). Known adverse reaction(s) Stop use if hypersensitivity/allergy occurs (Gardner and McGuffin 2013; Blumenthal 2000; WHO 1999). Non-medicinal ingredients Must be chosen from the current Natural Health Products Ingredients Database (NHPID) and must meet the limitations outlined in the database. Storage conditions Must be established in accordance with the requirements described in the Natural Health Products Regulations. Specifications The finished product specifications must be established with the requirements described in the Natural and Non-prescription Health Products Directorate (NNHPD) Quality of Natural Health Products Guide. The medicinal ingredient must comply with the requirements outlined in the NHPID. EXAMPLE OF PRODUCT FACTS: Consult the Guidance Document, Labelling of Natural Health Products for more details.

References cited Al Jamal AR. Effects of cinnamon on blood glucose and lipid levels in diabetic patients (type 1). African Journal of Biochemistry Research 2009;3(5):181-184. Bensky D, Clavey, Stöger E, Gamble A. Chinese Herbal Medicine: Materia Medica. 3rd edition. Seattle (WA): Eastland Press, Incorporated; 2004. BHC 2006: Bradley PR, editor. British Herbal Compendium Volume 2: A Handbook of Scientific Information on Widely Used Plant Drugs - Companion to the British Herbal Pharmacopoeia. Bournemouth (GB): British Herbal Medicine Association; 2006. Blumenthal M, Goldberg A, Brinckmann J. Herbal Medicine: Expanded Commission E Monographs. Boston (MA): American Botanical Council; 2000. Blumenthal M, editor. The Complete German Commission E Monographs: Therapeutic Guide to Herbal Medicines. Austin (TX): American Botanical Council in cooperation with Integrative Medicine Communications; 1998. Brinker F. Herb Contraindications and Drug Interactions, 4th edition. Sandy (OR): Eclectic Medical Publications; 2010. Chen JK, Chen TT. Chinese Medical Herbology and Pharmacology. Crampton L, editor. City of Industry (CA): Art of Medicine Press Inc.; 2004. Crawford P. Effectiveness of cinnamon for lowering hemoglobin A1C in patients with type 2 diabetes: a randomized, controlled trial. Journal of the American Board of Family Medicine 2009;22(5):507-512. Davis PA, Yokoyama W. Cinnamon intake lowers fasting blood glucose: meta-analysis. Journal of Medicinal Food 2011;14(9):884-889. Gardner Z, McGuffin M, editors. American Herbal Products Association's Botanical Safety Handbook. 2nd edition. Boca Raton (FL): Taylor and Francis Group; 2013. Gruenwald J, Freder J, Armbruester N. Cinnamon and health. Critical Reviews in Food Science and Nutrition 2010;50(9):822-834. Halvorsen BL, Carlsen MH, Phillips KM, Bohn SK, Holte K, Jacobs DR Jr, Blomhoff R. Content of redox-active compounds (ie, antioxidants) in foods consumed in the United States. American Journal of Clinical Nutrition 2006;84(1):95-135. Khan A, Safdar M, Ali Khan MM, Khattak KN, Anderson RA. Cinnamon improves glucose and lipids of people with type 2 diabetes. Diabetes Care 2003;26(12):3215-3218. Mang B, Wolters M, Schmitt B, Kelb K, Lichtinghagen R, Stichtenoth DO, Hahn A. Effects of a cinnamon extract on plasma glucose, HbA1C, and serum lipids in diabetes mellitus type 2. European Journal of Clinical Investigation 2006;36(5):340-344. PPRC 2020: Pharmacopoeia of the People's Republic of China. Volume 1, English edition. Beijing (CN): The State Pharmacopoeia Commission of the People's Republic of China; 2020. Roussel AM, Hininger I, Benaraba R, Ziegenfuss TN, Anderson RA. Antioxidant effects of a cinnamon extract in people with impaired fasting glucose that are overweight or obese. Journal of the American College of Nutrition 2009;28(1):16-21. Safdar M, Khan A., Khan MMA, Siddique M. Effect of various doses of cinnamon on blood glucose in diabetic individuals. Pakistan Journal of Nutrition 2004;3:268-272. Shan B, Cai YZ, Sun M, Corke H. Antioxidant capacity of 26 spice extracts and characterization of their phenolic constituents. Journal of Agricultural and Food Chemistry 2005;53(20):7749- 7759. USDA 2024: United States Department of Agriculture, Agricultural Research Service (USDA ARS), Germplasm Resources Information Network (GRIN) - Global. U.S. National Plant Germplasm System. [Accessed 2024 August 12]. Available from:

https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysearch WHO 1999: World Health Organization. WHO Monographs on Selected Medicinal Plants, Volume 1. Geneva (CH): World Health Organization; 1999. References reviewed American Society of Health-System Pharmacists. American Hospital Formulary Service (AHFS) Drug Information. Philadelphia (PA): Lippincott Williams and Wilkins; 2005. Altschuler JA, Casella SJ, MacKenzie TA, Curtis KM. The effects of cinnamon on A1C among adolescence with type 1 diabetes. Diabetes Care 2007;30:813-816. Anderson RA, Broadhurst CL, Polansky MM, Schmidt WF, Khan A, Flanagan VP, Schoene NW, Graves DJ. Isolation and characterization of polyphenol type-A polymers from cinnamon with insulin-like biological activity. Journal of Agricultural and Food Chemistry 2004;52(1):65- 70. Baker W, Gutierrez-Williams G, White CM, Kluger J, Coleman CI. Effect of cinnamon on glucose control and lipid parameters. Diabetes Care 2008;31:41-43. Bandara T, Uluwaduge I, Jansz ER. 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DOSAGE FORM(S)

Acceptable dosage forms for oral use are indicated in the dosage form drop-down list of the web-based Product Licence Application form for Compendial applications.

DOSE(S)

Shan B, Cai YZ, Sun M, Corke H. Antioxidant capacity of 26 spice extracts and characterization of their phenolic constituents. Journal of Agricultural and Food Chemistry 2005;53(20):7749- 7759. USDA 2024: United States Department of Agriculture, Agricultural Research Service (USDA ARS), Germplasm Resources Information Network (GRIN) - Global. U.S. National Plant Germplasm System. [Accessed 2024 August 12]. Available from: https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysearch WHO 1999: World Health Organization. WHO Monographs on Selected Medicinal Plants, Volume 1. Geneva (CH): World Health Organization; 1999.

RISK INFORMATION

Caution(s) and warning(s) Appetite loss; Digestive disturbances/Indigestion; Traditional Chinese Medicine claims Ask a health care practitioner/health care provider/health care professional/doctor/physician if symptoms persist or worsen. Products providing 1 g or more of branch bark, stem bark and/or trunk bark, per day Ask a health care practitioner/health care provider/health care professional/doctor/physician before use if you are breastfeeding (Blumenthal et al. 2000; WHO 1999).Ask a health care practitioner/health care provider/health care professional/doctor/physician before use if you have diabetes (Gardner and McGuffin 2013; Brinker 2010). Contraindication(s) Products providing 1 g or more of branch bark, stem bark and/or trunk bark, per day Do not use if you are pregnant (PPRC 2020; Brinker 2010; BHC 2006; Chen and Chen 2004; Blumenthal 2000, 1998). Traditional Chinese Medicine claims Do not use if you have excess heat, blood heat or deficiency, or yin-deficient fire (PPRC 2020; Bensky et al. 2004; Chen and Chen 2004). Known adverse reaction(s) Stop use if hypersensitivity/allergy occurs (Gardner and McGuffin 2013; Blumenthal 2000; WHO 1999).

NON-MEDICINAL INGREDIENTS

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

STORAGE CONDITION(S)

Must be established in accordance with the requirements described in the Natural Health Products Regulations.

SPECIFICATIONS

The finished product specifications must be established with the requirements described in the Natural and Non-prescription Health Products Directorate (NNHPD) Quality of Natural Health Products Guide.The medicinal

ingredient must comply with the requirements outlined in the NHPID.

r name(s)	Common name(s)	Source information	
material(s)	Part(s)	Preparation(s)	
nomum aromaticum	CassiaCassia cinnamonChinese cinnamonChinese cinnamon treeRou Gui	Chinese cinnamon treeRou Gui	Branch barkStem barkTrunk bark