Glucomannan

Source: https://webprod.hc-sc.gc.ca/nhpid-bdipsn/atReq?atid=glucomannan⟨=eng

Extracted: 2025-08-26T06:33:26.277334

GLUCOMANNAN Help on accessing alternative formats, such as Portable Document Format (PDF), Microsoft Word and PowerPoint (PPT) files, can be obtained in the alternate format help section. (PDF Version - 74 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 PLA and product 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. Date July 26, 2024 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) Glucomannan Glucomannan Amorphophallus bulbifer Amorphophallus konjac Amorphophallus muelleri Tuber References: Proper name: NIH 2023, RSC 2023; Common names: NIH 2023, Chua et al. 2010, RSC 2023; Source information: USDA 2023, RSC 2023. 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. The acceptable dosage forms are limited to the oral capsule and powder dosage forms listed in the dosage form drop-down list of the web-based Product Licence Application form for Compendial applications. Use(s) or Purpose(s) Helps to lower cholesterol levels (by reducing cholesterol absorption from the gastrointestinal tract) (EFSA 2009; Sood et al. 2008; Martino et al. 2005; Chen et al. 2003; Arvill and Bodin 1995; Walsh et al. 1984). (Used in Herbal Medicine as a) bulk-forming laxative (Chua et al. 2010; Chen et al. 2008; Chen et al. 2006; González Canga et al. 2004; Loening-Baucke et al. 2004). (Used in Herbal Medicine to) promote(s) bowel movements (by increasing bulk volume and water content) (Chua et al. 2010; Chen et al. 2008; Chen et al. 2006; González Canga et al. 2004; Loening-Baucke et al. 2004). (Used in Herbal Medicine to) provide(s) gentle relief of constipation and/or irregularity (Chua et al. 2010; Chen et al. 2008; Chen et al. 2006; González Canga et al. 2004; Loening-Baucke et al. 2004). Note: The above uses can be combined on the product label if from the same system of medicine (e.g. Used in Herbal Medicine as a bulk-forming laxative for gentle relief of constipation and/or irregularity). Dose(s) Subpopulation(s) Adults 18 years and older Quantity(ies) Lowering of cholesterol 1 - 1.5 grams of glucomannan, 3 times per day (EFSA 2009; Martino et al. 2005; Chen et al. 2003; Arvill and Bodin 1995; Walsh et al. 1984) Laxative; Promotion of bowel movement; Constipation relief 0.5 - 5 grams of glucomannan, 3 times per day (Chen et al. 2008; Chen et al. 2006; González Canga et al. 2004; Loening-Baucke et al. 2004) Direction(s) for use All products For each dose, drink at least 250 ml of liquid (FDA 2023, Martino et al. 2005, Chen et al. 2003, Arvill and Bodin 1995, Walsh et al. 1984). Maintain adequate fluid intake (FDA 2023; EMA 2013). Take a few hours before or after taking other medications or health products (Sweetman 2007; Keithley and Swanson 2005). Taking this product with insufficient liquid may result in choking, or blockage/obstruction of the throat, esophagus or intestine (FDA 2023; Sweetman 2007; Vanderbeek et al. 2007; Henry et al. 1986). For powder dosage forms Mix well with liquid and drink immediately. Lowering of cholesterol Take 0.5-1 hour before meals (Chen et al. 2003; Arvill and Bodin 1995; Walsh et al. 1984). Laxative; Promotion of bowel movement; Constipation relief Effects observed 12-24 hours after first dose, but may take 2-3 days (Berardi et al. 2002). Optional Take during the day (not immediately prior to bedtime) (Sweetman 2007). Optional (for products with a dosage range) Minimum daily dose may be increased, up to the maximum daily dose, until desired effect is obtained. Duration(s) of use Cholesterol-lowering products Ask a healthcare practitioner/health care provider/health care professional/doctor/physician for use beyond 8 weeks (Martino et al. 2005; Walsh et al. 1984). Risk Information Caution(s) and warning(s) All products Ask a health care practitioner/health care provider/health care professional/doctor/physician immediately if you experience chest pain, vomiting, or difficulty swallowing or breathing after taking this product (FDA 2023). Ask a health care practitioner/health care provider/health care professional/doctor/physician before use if you are pregnant or breastfeeding. Ask a health care practitioner/health care provider/health care professional/doctor/physician before use if you have diabetes or a lazy bowel (UpToDate 2023; EMA 2013; Chen et al. 2003; Vuksan et al. 2001). Laxative; Promotion of bowel movement; Constipation relief Ask a health care practitioner/health care provider/health care

professional/doctor/physician if symptoms worsen or if laxative effect does not occur within 7 days (Pray 2006; Repchinsky 2002). Contraindication(s) All products Do not use if you have difficulty swallowing (FDA 2023; Sweetman 2007; Vanderbeek et al. 2007; Henry et al. 1986). Do not use if you have fever or any undiagnosed gastrointestinal trouble (EMA 2013; Pray 2006; Berardi et al. 2002). Known adverse reaction(s) All products Stop use if hypersensitivity/allergy occurs (EMA 2013). When using this product you may experience temporary gas and bloating (Sood et al. 2008). 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 in accordance 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 Arvill A, Bodin L. 1995. Effect of short-term ingestion of konjac glucomannan on serum cholesterol in healthy men. American Journal of Clinical Nutrition 61(3):585-589. Berardi RR, DeSimone EM, Newton GD, Oszko MA, Popovich NG, Rollins CJ, Shimp LA, Tietze KJ, editors. 2002. Handbook of Nonprescription Drugs: An Interactive Approach to Self- Care, 13th edition. Washington (DC): American Pharmaceutical Association. Chen HL, Cheng HC, Wu WT, Liu YJ, Liu SY. 2008. Supplementation of konjac glucomannan into a low-fibre Chinese diet promoted bowel movement and improved colonic ecology in constipated adults: a placebo-controlled, diet controlled trial. Journal of the American College of Nutrition 27:102-108. Chen HL, Cheng HC, Liu YJ, Liu SY, Wu WT. 2006. Konjac acts as a natural laxative by increasing stool bulk and improving colonic ecology in healthy adults. Nutrition 22:1112-1119. Chen HL, Sheu WH, Tai TS, Liaw YP, Chen YC. 2003. Konjac supplement alleviated hypercholesterolemia and hyperglycemia in type 2 diabetic subjects—a randomized double-blind trial. Journal of American College of Nutrition 22(1):36-42. Chua M, Baldwin TC, Hocking TJ, Chan K. 2010. Traditional uses and potential health benefits of Amorphophallus konjac K. Koch ex N.E.Br. Journal of Ethnopharmacology 128(2):268-278. EFSA 2009: European Food Safety Authority. 2009. EFSA Panel on Dietetic Products, Nutrition and Allergies; Scientific Opinion on the substantiation of health claims related to glucomannan and maintenance of normal blood cholesterol concentrations (ID 836, 1560) pursuant to Article 13(1) of Regulation (EC) No 1924/2006 on request from the European Commission. EFSA Journal 7(9): 1258. doi:10.2903/j.efsa.2009.1258. [Accessed 2023 December 31]. Available from: https://efsa.onlinelibrary.wiley.com/doi/pdf/10.2903/j.efsa.2009.1258#:~:text=plausibility)%20are%20established.-, The%20Panel%20concludes%20that%20a%20cause%20and%20effect%20relationship%20has,reduction%20of%20blood%20cholesterol%20concentrations.&text=The%20Panel%20considers%20that%20in,in%20one%20or%20more%20servings. EMA 2013. European Medicines Agency. Final Community Herbal Monograph on Plantago afra L. et Plantago indica L., semen. London (UK): EMA Committee on Herbal Medicinal Products (HMPC), 14 May 2013. [Accessed 2023 December 31]. Available from: https://www.ema.europa.eu/en/documents/herbal-monograph/final-community-herbal-monograph-plantago-afra-l-et-plantago-indica-l-semen_en.pdf FDA 2023: United States Food and Drug Administration. Specific Labeling Requirements for Specific Drug Products. Code of Federal Regulations Title 21, Volume 4 (21CFR201.319). Rockville (MD): United States Department of Health and Human Services, U.S. Food and Drug Administration. [Accessed 2023 December 31]. Available from: http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?fr=201.319 González Canga A, Fernández Martínez N, Sahagún AM, García Vieitez JJ, Díez Liébana MJ, Calle Pardo AP, Castro Robles LJ, Sierra Vega M. 2004. Glucomanano: propiedades y aplicaciones terapéuticas [Glucomannan: properties and therapeutic applications] Nutrición Hospitalaria 19(1):45-50. Henry DA, Mitchell AS, Aylward J. 1986. Glucomannan and risk of esophageal obstruction. British Medical Journal 292:591-592. Keithley J, Swanson B, 2005. Glucomannan and obesity: a critical review. Alternative Therapies in Health and Medicine 11:30-34. Loening-Baucke V, Miele E, Staiano A. 2004. Fiber (glucomannan) is beneficial in the treatment of childhood constipation. Pediatrics 113(3 Pt 1):e259-e264. Martino F, Martino E, Morrone F, Carnevali E, Forcone R, Niglio T. 2005. Effect of dietary supplementation with glucomannan on plasma total cholesterol and low density lipoprotein cholesterol in hypercholesterolemic children. Nutrition, Metabolism & Cardiovascular Diseases (3):174-180. NIH 2023: National Institutes of Health PubChem. Bethesda (MD)US Department of Health & Human Services. [Accessed 2023 December 31]. Available from https://pubchem.ncbi.nlm.nih.gov/ Pray WS. 2006. Non-Prescription Product Therapeutics, 2nd edition. New York (NY): Lippincott Williams & Wilkins. Repchinsky C, editor. 2002. Patient Self-Care. Helping Patients Make Therapeutic Choices. Ottawa (ON): Canadian Pharmacists Association. RSC 2023: Royal Society of Chemistry: The Merck Index Online [Consulté le 31 décembre 2023]. Disponible à : https://merckindex.rsc.org/ Sood N, Baker WL, Coleman CI. 2008. Effect of glucomannan on plasma lipid and glucose concentrations, body weight, and blood pressure: systematic review and meta-analysis. American Journal of Clinical Nutrition 88(4):1167-1175. Sweetman SC, editor. 2007. Martindale: The Complete Drug Reference, 35th edition. London (GB): Pharmaceutical Press. UpToDate 2023:

Wolters Kluwer. [Accessed 2023 December 31]. Available from: https://www.wolterskluwer.com/en/solutions/uptodate USDA 2023: Germplasm Resources Information Network (GRIN) - Global. U.S. National Plant Germplasm System. [Accessed 2023 December 31]. Available from: https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysearch Vanderbeek PB, Fasano C, O'Malley G, Hornstein J. 2007. Esophageal obstruction from a pharmacobezoar containing glucomannan. Clinical Toxicology 45(1):80-82. Vuksan V, Sievenpiper JL, Xu Z, Wong EYY, Jenkins AL, Beljan-Zdravkovic U, Leiter LA, Josse RG, Stavro M.P. 2001. Konjac-mannan and American ginsing: emerging alternative therapies for type 2 diabetes mellitus. Journal of the American College of Nutrition 20:370S- 380S. Walsh DE, Yaghoubian V, Behforooz A. 1984. Effect of glucomannan on obese patients: a clinical study. International Journal of Obesity 8(4):289-293. References Reviewed Al-Ghazzewi FH, Khanna S, Tester RF, Piggott J. 2007. The potential use of hydrolysed konjac glucomannan as a prebiotic. Journal of the Science of Food and Agriculture 87:1758-1766. Alonso-Sande M, Teijeiro-Osorio D, Remuñán-López C, Alonso MJ. 2009. Glucomannan, a promising polysaccharide for biopharmaceutical purposes. European Journal of Pharmaceutics and Biopharmaceutics 72:453-462. Australian Competition and Consumer Commission. Commonwealth of Australia Gazette No. S 667, Monday 22 December 1986. Notice of Permanent Ban: Glucomannan in tablet form. Canberra (AU): Australian Government Publishing Service. [Accessed 2009-05-26]. Available from: www.accc.gov.au/content/index.phtml/itemId/780157 Birketvedt GS, Shimshi M, Thom E, Florholmen J. 2005. Experiences with three different fiber supplements in weight reduction. Medical Science Monitor 11(1):15-18. Chen HL, Fan YH, Chen ME, Chan Y. 2005. Unhydrolyzed and hydrolyzed konjac glucomannans modulated cecal and fecal microflora in Balb/c mice. Nutrition 21:1059-1064. EC-SCF 1997: European Commission 1997 Reports of the Scientific Committee for Food (forty- first series): Opinion on the safety in use of konjac glucomannan as a food additive. Brussels (LU): Office for Official Publications of the European Communities [Accessed 2009-12-23]. Available from: http://ec.europa.eu/food/fs/sc/scf/reports/scf_reports_41.pdf EC-SCF 1997: European Commission 1997. Reports of the Scientific Committee for Food (forty-first series): Opinion on the safety in use of konjac gum as a food additive. Brussels (LU): Office for Official Publications of the European Communities [Accessed 2009-12-23]. Available from: http://ec.europa.eu/food/fs/sc/scf/reports/scf_reports_41.pdf Facciola S. 1998. Cornucopia II: A Source Book of Edible Plants. Vista CA: Kampong Publications. FDA 1994: United States Food and Drug Administration. 1994. Dietary Supplement Health and Education Act of 1994. [Accessed 2009-12-24]. Available from: http://www.fda.gov/RegulatoryInformation/Legislation/FederalFoodDrugandCosmeticActFDCA ct/SignificantAmendmentstotheFDCAct/ucm148003.htm FDA 1993: United States Food and Drug Administration. 1993. 21 CFR Part 201. Warning Statements Required for Over-the-Counter Drugs Containing Water-soluble Gums as Active Ingredients. Final Rule. Federal Register Volume 58, No. 164, August 26, 1993. [Accessed 2009-12-29]. Available from: http://www.fda.gov/downloads/Drugs/DevelopmentApprovalProcess/DevelopmentResources/Ov er-the-CounterOTCDrugs/StatusofOTCRulemakings/ucm085690.pdf Livieri C, Novazi F, Lorini R. 1992. The use of highly purified glucomannan-based fibers in childhood obesity. La Pediatria medica e chirurgica 14(2):195-198. Natural Health Products Directorate. 2009. Natural Health Products Ingredients Database. [Accessed 2009-06-22]. Available from: http://webprod.hc-sc.gc.ca/nhpid-bdipsn/search- rechercheReq.do Roberts A, O'Brien M, Subak-Sharpe G. 2001. Glucomannan, The Official American Nutraceutical Association Guide, Nutraceuticals The Complete Encyclopedia of Supplements, Herbs, Vitamins, and Healing Foods. Saper RB, Eisenberg DM, Phillips RS. 2004. Common dietary supplements for weight loss. American Family Physician 70(9):1731-178. Vasques CAR, Rossetto S, Halmenschlager G, Linden R, Heckler E, Fernandez MSP, Alonso JLL. 2008. Evaluation of the pharmacotherapeutic efficacy of Garcia cambogia plus Amorphophallus konjac for the treatment of obesity. Phototherapy Research 22:1135-1140. Villaverde AF, Benlloch S, Berenguer M, Rayon JM, Pina R, Berenguer J. 2004. Acute hepatitis of cholestatic type possibly associated with the use of glucomannan (Amorphophallus konjac). Journal of Hepatology 41:1061-1067. Vuksan V, Sievenpiper JL, Owen R, Swilley JA, Spadafora P, Jenkins FJA, Vidgen E, Brighenti F, Josse RG, Leiter LA, Xu Z, Novokmet R. 2000. Beneficial effects of viscous dietary fibre from konjac-mannan in subjects with the insulin resistance syndrome. Diabetes Care 23:9-14. Vuksan V, Jenkins DJA, Spadafora P, Sievenpiper JL, Owen R, Vidgen E, Brighenti F, Josse R, Leiter LA, Thompson CB. 1999. Konjac-mannan (glucomannan) improves glycemia and other associated risk factors for coronary heart disease in type 2 diabetes. Diabetes Care 22:913-919. Yoshida M, Vanstone CA, Parsons WD, Zawistowski J, Jones PJ. 2006. Effect of plant sterols and glucomannan on lipids in individuals with and without type II diabetes. European Journal of Clinical Nutrition 60(4):529-537. Report a problem on this page Date modified: 2019-03-01

MEDICINAL INGREDIENT(S)

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 theNatural Health Products Regulations.

DOSAGE FORM(S)

The acceptable dosage forms are limited to the oral capsule and powder dosage forms listed in the dosage form drop-down list of the web-based Product Licence Application form for Compendial applications.

RISK INFORMATION

Caution(s) and warning(s) All products Ask a health care practitioner/health care provider/health care professional/doctor/physician immediately if you experience chest pain, vomiting, or difficulty swallowing or breathing after taking this product (FDA 2023).Ask a health care practitioner/health care provider/health care professional/doctor/physician before use if you are pregnant or breastfeeding.Ask a health care practitioner/health care provider/health care professional/doctor/physician before use if you have diabetes or a lazy bowel (UpToDate 2023; EMA 2013; Chen et al. 2003; Vuksan et al. 2001). Laxative; Promotion of bowel movement; Constipation relief Ask a health care practitioner/health care provider/health care professional/doctor/physician if symptoms worsen or if laxative effect does not occur within 7 days (Pray 2006; Repchinsky 2002). Contraindication(s) All products Do not use if you have difficulty swallowing (FDA 2023; Sweetman 2007; Vanderbeek et al. 2007; Henry et al. 1986).Do not use if you have fever or any undiagnosed gastrointestinal trouble (EMA 2013; Pray 2006; Berardi et al. 2002). Known adverse reaction(s) All products Stop use if hypersensitivity/allergy occurs (EMA 2013).When using this product you may experience temporary gas and bloating (Sood et al. 2008).

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 theNatural Health Products Regulations.

STORAGE CONDITION(S)

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

SPECIFICATIONS

The finished product specifications must be established in accordance 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:

REFERENCES

Route of administration Oral

Proper name(s)	Common name(s)	Source information	
Source material(s)	Part(s)		
Glucomannan	Glucomannan	Amorphophallus bulbiferAmorphophallus konjacAmorphophallus muelleri	Tuber