

Resveratrol

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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 January 10, 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 ingredient(s) Source material(s) Part(s) Preparation(s) (E)-5-(p-Hydroxystyryl)resorcinol 5-[(1E)-2-(4-Hydroxyphenyl)ethenyl]-1,3-benzenediol trans-3,4',5-Trihydroxystilbene trans-Resveratrol Resveratrol N/A Reynoutria japonica Root N/A N/A Vitis vinifera Fruit N/A Resveratrol N/A N/A Synthetic References: Proper names: RSC 2024; PubChem 2023; Common name: RSC 2024; Source information: RSC 2024; USDA 2024; La Porte et al. 2010; Bertelli and Das 2009; Dani et al. 2007. 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 indicated in the dosage form drop-down list of the web-based Product Licence Application form for Compendial applications. Use(s) or Purpose(s) Source of (an) antioxidant(s)/Provides (an) antioxidant(s) (Ghanim et al. 2010; Rocha et al. 2009). Source of (an) antioxidant(s)/Provides (an) antioxidant(s) that help(s) fight/protect (cell) against/reduce (the oxidative effect of/the oxidative damage caused by/cell damage caused by) free radicals (Ghanim et al. 2010; Rocha et al. 2009). Note: If resveratrol is combined with other medicinal ingredients with antioxidant properties, there is an option to use the claims in plural. The singular should be used when the product only contains one chemical substance (e.g., resveratrol) as the medicinal ingredient associated with the claim. Dose(s) Subpopulation(s) Adults 18 years and older Quantity(ies) Not to exceed 1 gram of resveratrol, per day (Cottart et al. 2013; Brown et al. 2010; Gaby 2006). Direction(s) for use No statement required. Duration(s) of Use Products providing more than 500 mg of resveratrol, per day Ask a health care practitioner/health care provider/health care professional/doctor/physician for use beyond 3 months (Harper et al. 2021; Mansour et al. 2021; Hassan et al. 2023). Risk Information Caution(s) and warning(s) 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 are taking medications or any other health products, as resveratrol may alter their effectiveness (Bedada and Nearati 2015; Brasnyó et al. 2011; Chow et al. 2010). Contraindication(s) No statement required. Known adverse reaction(s) Products providing more than 500 mg of resveratrol, per day When using this product you may experience gastrointestinal discomfort/disturbances (Brown et al. 2010; Chow et al. 2010). 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 Bedada SK, Nearati P. Effect of resveratrol on the pharmacokinetics of carbamazepine in healthy human volunteers. *Phytother Res.* 2015;29(5):701-706. Bertelli AA, Das DK. Grapes, wines, resveratrol, and heart health. *Journal of Cardiovascular Pharmacology* 2009;54(6):468-476. Brasnyó P, Molnár GA, Mohás M, Markó L, Laczy B, Cseh J, Mikolás E, Szijártó IA, Mérei A, Halmai R, Mészáros LG, Sümegi B, Wittmann. Resveratrol improves insulin sensitivity, reduces oxidative stress and activates the Akt pathway in type 2 diabetic patients. *British Journal of Nutrition* 2011;106(3):383-389. Brown VA, Patel KR, Viskaduraki M, Crowell JA, Perloff M, Booth TD, Vasilinin G, Sen A, Schinas AM, Piccirilli G, Brown K, Steward WP, Gescher AJ, Brenner DE.

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Available from: <https://merckindex.rsc.org/> 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 November 14]. Available from: <https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysearch> References reviewed Baxter RA. Anti-aging properties of resveratrol: review and report of a potent new antioxidant skin care formulation. *Journal of Cosmetic Dermatology* 2008;7(1):2-7. Bishayee A. Cancer Prevention and Treatment with Resveratrol: From Rodent Studies to Clinical Trials. *Cancer Prevention Research Published Online First*;2009. Boocock DJ, Faust GE, Patel KR, Schinas AM, Brown VA, Ducharme MP, Booth TD, Crowell JA, Perloff M, Gescher AJ, Steward WP, Brenner DE. 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treatment of aging skin. Collegium antropologicum 2010;34(3):1145-1153. Soleas GJ, Yan J, Goldberg DM. Ultrasensitivity assay for the three polyphenols (catechin, quercetin and resveratrol) and their conjugates in biological fluids utilizing gas chromatography with mass selective detection. Journal of chromatography. B, Analytical technologies in the biomedical and life sciences 2002;757:161-172. Toklu HZ, Sehirli O, Ersahin M, Süleymanoglu S, Yiginer O, Emekli-Alturfan E, Yarat A, Yegen BÇ, Sener G. Resveratrol improves cardiovascular function and reduces oxidative organ damage in the renal, cardiovascular and cerebral tissues of two-kidney, one-clip hypertensive rats. The Journal of pharmacy and pharmacology 2010;62(12):1784-1793. Vitaglione P, Sforza S, Galaverna G, Ghidini C, Caporaso N, Vescovi PP, Fogliano V, Marchelli R. Bioavailability of trans-resveratrol from red wine in humans. Molecular nutrition and food research 2005;49:495-504. Walle T, Hsieh F, DeLegge MH, Oatis JE, Walle UK. High absorption but very low bioavailability of oral resveratrol in humans. Drug metabolism and disposition: the biological fate of chemicals.2004;32:1377-1382. Wang J, He D, Zhang Q, Han Y, Jin S, Qi F. Resveratrol Protects Against Cisplatin-Induced Cardiotoxicity by Alleviating Oxidative Damage. Cancer biotherapy and radiopharmaceuticals, 2009;24(6):675-680. Wood LG, Wark PA, Garg ML. Antioxidant and anti-inflammatory effects of resveratrol in airway disease. Antioxid Redox Signal 2010 Nov 15;13(10):1513-1515. Zamora-Ros R, Urpí-Sardà M, Lamuela-Raventós RM, Estruch R, Vázquez-Agell M, Serrano-Martínez M, Jaeger W, Andres-Lacueva C. Diagnostic performance of urinary resveratrol metabolites as a biomarker of moderate wine consumption.Clinical Chemistry 2006;52:1373-80. Zern TL, Wood RJ, Greene C, West KL, Liu Y, Aggarwal D, Shachter NS, Fernandez ML. Grape Polyphenols Exert a Cardioprotective Effect in Pre- and Postmenopausal Women by Lowering Plasma Lipids and Reducing Oxidative Stress. Journal of Nutrition 2005;135:1911-1917. Report a problem on this page Date modified: 2019-03-01

DOSAGE FORM(S)

Acceptable dosage forms for oral use indicated 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) 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 are taking medications or any other health products, as resveratrol may alter their effectiveness (Bedada and Nearati 2015; Brasnyó et al. 2011; Chow et al. 2010). Contraindication(s) No statement required. Known adverse reaction(s) Products providing more than 500 mg of resveratrol, per day When using this product you may experience gastrointestinal discomfort/disturbances (Brown et al. 2010; Chow et al. 2010).

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 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.

Proper name(s)	Common name(s)	Source information			
Source ingredient(s)	Source material(s)	Part(s)	Preparation(s)		
(E)-5-(p-Hydroxystyryl)resorcinol5-[(1E)-2-(4-Hydroxyphenyl)ethenyl]-1,3-benzenedioltrans-3,4',5-Trihydroxystilbene	Resveratrol	N/A	Resveratrol	Root	N/A
N/A	Vitis vinifera	Fruit	N/A		
Resveratrol	N/A	N/A	Synthetic		