MSM

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MSM 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 - 28 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 December 30, 2022 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) Preparation(s) Dimethyl sulfone Methylsulfonylmethane Sulfonylbismethane Methylsulfonylmethane MSM Dimethyl sulfone Synthetic References: Proper names: NLM 2009, O'Neil et al. 2006; Common names: NLM 2009, O'Neil et al. 2006; Source information: Zajac et al. 2003, Gennaro 2000. 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) Helps to relieve (joint) pain associated with osteoarthritis (of the knee) (Kim et al. 2005; Usha and Naidu 2004). Dose(s) Subpopulation(s) Adults 18 years and older Quantity(ies) 1,500 - 6,000 milligrams of MSM, per day; Not to exceed 2,000 milligrams per single dose (Kim et al. 2005; Usha and Naidu 2004) Direction(s) for use Products providing 1,500 mg or more of MSM, per day Take with food (Kim et al. 2005). Avoid taking at bedtime (Kim et al. 2005). Duration(s) of Use Use for at least 1 month to see beneficial effects (Kim et al. 2005; Usha and Naidu 2004). Risk Information Caution(s) and warning(s) Consult a health care practitioner/health care provider/health care professional/doctor/physician if symptoms worsen. Consult a health care practitioner/health care provider/health care professional/doctor/physician prior to use if you are pregnant or breastfeeding. Contraindication(s) No statement required. Known adverse reaction(s) Some people may experience gastrointestinal discomfort/disturbances (Kim et al. 2005). 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 (NHPR). 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. References Cited ChemIDplus 2018: Methylsulfonylmethane. [online]. [Accessed 2018 September 28]. Available from: https://chem.nlm.nih.gov/chemidplus/name/methylsulfonylmethane Kim LS, Axelrod LJ, Howard P, Buratovich N, Waters RF. 2006. Efficacy of methylsulfonylmethane (MSM) in osteoarthritis pain of the knee: a pilot clinical trial. Osteoarthritis Cartilage 14:286-294. O'Neil MJ, Smith A, Heckelman PE, Budavari S, editors. 2001. The Merck Index: An Encyclopedia of Chemicals, Drugs, and Biologicals, 13 th edition. Whitehouse Station (NJ): Merck & Co., Inc. Usha PR, Naidu MUR. 2004. Randomised, double-blind, parallel, placebo-controlled study of oral glucosamine, methylsulfonylmethane and their combination in osteoarthritis. Clinical Drug Investigation 24(6):353-363. References Reviewed Altman R, Brandt K, Hochberg M, Moskowitz R, Bellamy N, Bloch DA, Buckwalter J, Dougados M, Ehrlich G, Lequesne M, Lohmander S, Murphy WA Jr, Rosario-Jansen T, Schwartz B, Trippel S. 1996. Design and conduct of clinical trials in patients with osteoarthritis: recommendations from a task force of the Osteoarthritis Research Society; Results from a workshop. Osteoarthritis Cartilage 4(4):217-43. Horvath K, Noker PE, Somfai-Relle S, Glávits R, Financsek I, Schauss AG. 2002. Toxicity of methylsulfonylmethane in rats. Food and Chemical Toxicology 40:1459-1462. Lin A, Nguy CH, Shic F, Ross BD. 2001. Accumulation of methylsulfonylmethane in the human brain: identification by multinuclear magnetic resonance spectroscopy. Toxicology Letters 123:169-177. Magnuson BA, Appleton J, Ames GB. 2007. Pharmacokinetics and Distribution of [35 S]Methylsulfonylmethane Following Oral Administration to Rats. Journal of Agriculture and Food Chemistry 55:1033-1038. Marieb E. 1992. Human Anatomy and Physiology, 2

nd edition. Redwood City (CA): The Benjamin/Cummings Publishing Company, Inc. 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(NHPR).

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

RISK INFORMATION

Caution(s) and warning(s) Consult a health care practitioner/health care provider/health care professional/doctor/physician if symptoms worsen.Consult a health care practitioner/health care provider/health care professional/doctor/physician prior to use if you are pregnant or breastfeeding. Contraindication(s) No statement required. Known adverse reaction(s) Some people may experience gastrointestinal discomfort/disturbances (Kim et al. 2005).

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(NHPR).

STORAGE CONDITION(S)

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

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.

REFERENCES

Route of Administration Oral

Proper name(s)	Common name(s)	Source information	
Source ingredient(s)	Preparation(s)		
Dimethyl sulfoneMethylsulfonylmethaneSulfonylbismethaneMethylsulfonylmethaneMSM		Dimethyl sulfone	Synthetic