Fixed Oil Products - Oral

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Fixed Oil Products - Oral 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 - 409 K) This monograph is intended to serve as a guide to industry for the preparation of Product Licence Applications (PLA s) for natural health product market authorization. It is not intended to be a comprehensive review of the medicinal ingredients. Notes This monograph only covers naturally-occurring fatty acids in each fixed oil, including concentrated oils, but excludes fixed oils spiked with additional fatty acids. Essential/volatile oil preparations (e.g. those prepared by distillation) are not within the scope of this monograph. Hydrogenated oils and partially hydrogenated oils are not within the scope of this monograph. This monograph may be used to support single ingredient or multi-ingredient products containing any medicinal ingredient from Table 1. 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 or statements are synonymous. Either term or statement may be selected by the applicant on the label. Date March 28, 2025 Proper name(s), Common name(s), and Source information Table 1. Proper name(s), Common name(s) and Source information Proper name(s) Common name(s) Source information Source material(s) Part(s) Borago officinalis Borage oil Borage seed oil Borago officinalis Seed Camelina sativa False flax oil Camelina sativa Seed Cannabis sativa Hemp seed oil Cannabis sativa Non-viable Seed Canola Oil Canola oil Colza oil Rapeseed oil Brassica napus Brassica juncea Brassica rapa Seed Carthamus tinctorius Safflower oil Carthamus tinctorius Seed Cocos nucifera Coconut oil Cocos nucifera Seed endosperm Cod liver oil Cod liver oil Lecoris aselli oleum Gadidae 1 Liver Cucurbita pepo Pumpkin seed oil Cucurbita pepo Seed Fish oil 2 Fish oil Ammodytidae Carangidae Clupeidae Engraulidae Gadidae 3 Osmeridae Salmonidae Scombridae Whole Helianthus annuus Sunflower oil Helianthus annuus Seed Hippophae rhamnoides Sea buckthorn fruit oil Hippophae rhamnoides Fruit Sea buckthorn seed oil Hippophae rhamnoides Seed Krill oil Krill oil Euphasia pacifica Euphausia superba Whole Linum usitatissimum Flax oil Flaxseed oil Linseed oil Linum usitatissimum Seed Oenothera biennis Evening primrose oil Primrose oil Oenothera biennis Seed Olea europaea Olive oil Olea europaea Fruit Prunus dulcis Almond oil Sweet almond oil Prunus dulcis Seed Ribes nigrum Blackcurrant seed oil Ribes nigrum Seed Salvia hispanica Chia seed oil Salvia hispanica Seed Schizochytrium spp Schizochytrium oil Schizochytrium spp. Whole Seal oil Seal oil Cystophora cristata Erignathus barbatus Halichoerus grypus Pagophilus groenlandicus Phoca vitulina Pusa hispida Blubber Squid oil Squid oil Todarodes pacificus Docidicus gigas Illex argentinus Illex illecebrosus Whole Triticum aestivum Wheat germ oil Triticum aestivum Seed germ Vitis vinifera Grape seed oil Vitis vinifera Seed References: Proper names: NHPID 2025; Common names: NHPID 2025; Source information: FCC 2023; ITIS 2023; USP-NF 2023; Ph.Eur 2023; Linnamaa et al. 2010; Yurko-Mauro et al. 2010; Dubois et al. 2007; Callaway et al. 2005; Hoffmann 2003; Yang et al. 1999. 1 Cod liver oil: The species common names and not the family could be listed on the label. 2 Fish oil: Corresponds to oil from the whole body of one or more species of the families listed in Table 1 in its natural and/or concentrated triglyceride/triacylglycerol form and/or its concentrated esterified form (BP 2023; Ph.Eur. 2023; Froese and Pauly 2022). The species common names and not the family could be listed on the label. 3 Fish oil: For fish oils including species of Gadidae as a source material, the vitamin A and D content should be tested to ensure that the daily maximum amounts meet the Multi-Vitamin/Mineral Supplements monograph for each age group. 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) and Dose(s) Subpopulation(s) Adults 18 years and older Quantity(ies) Refer to Tables 2 and 3. Table 2. Uses or purposes, associated daily dose and potency constituents (LA - Linoleic acid; ALA -Alpha-linolenic acid; EPA - Eicosapentaenoic acid; DHA - Docosahexaenoic acid; DPA - Docosapentaenoic acid; GLA-Gamma-linolenic acid; OA - Oleic acid) Medicinal ingredient Methods of preparation Uses or Purposes Daily Dose 1 Potency Constituents Borage oil Non-standardized fixed oil As per Borage oil monograph As per Borage oil monograph N/A Standardized fixed oil As per Table 3 Oil: up to 5 q and LA, ALA, GLA and/or OA as per Table 3* LA, ALA, GLA, OA Hemp seed oil Non-standardized fixed oil N/A Oil: up to 15 g

N/A Standardized fixed oil As per Table 3 Oil: up to 15 g and LA, ALA, GLA and/or OA as per Table 3* LA, ALA, GLA, OA Canola oil Non-standardized fixed oil N/A Oil: up to 15 g N/A Standardized fixed oil As per Table 3 Oil: up to 15 g and LA, ALA and/or OA as per Table 3*. LA, ALA, OA False flax Oil Non-standardized fixed oil N/A Oil: up to 15 g N/A Standardized fixed oil As per Table 3 Oil: up to 15 g and LA, ALA and/or OA as per Table 3*. LA, ALA, OA Safflower oil Non-standardized fixed oil N/A Oil: up to 15 g N/A Standardized fixed oil As per Table 3 Oil: up to 15 g and LA, ALA and/or OA as per Table 3*. LA, ALA, OA Coconut oil Non-standardized fixed oil Source of antioxidants/Provides antioxidants 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 Oil: up to 15 g N/A Standardized fixed oil Source of antioxidants/Provides antioxidants 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 and/or As per Table 3 Oil: up to 15 g and LA, ALA and/or OA as per Table 3* LA, ALA, OA Cod liver oil Standardized fixed oil As per Cod liver oil monograph As per Cod liver oil monograph EPA, DHA, Vitamin A, Vitamin D As per Table 3 Oil: up to 4 g and Minimum amounts of EPA and DHA as per Table 3* and Maximum amounts of EPA, DHA, Vitamin A and Vitamin D as per the Cod liver oil monograph Pumpkin seed oil Non-standardized fixed oil N/A Oil: up to 15 g N/A Standardized fixed oil As per Table 3 Oil: up to 15 g and LA and/or OA as per Table 3* LA, OA Fish oil Standardized fixed oil As per Fish oil monograph As per Fish oil monograph EPA, DHA As per Table 3 Oil: up to 10 g and EPA and DHA as per Table 3* Sunflower oil Non-standardized fixed oil Source of antioxidants/Provides antioxidants 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 Oil: up to 15 g N/A Standardized fixed oil Source of antioxidants/Provides antioxidants 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 and/or As per Table 3 Oil: up to 15 g and LA and/or OA as per Table 3* LA, OA Sea buckthorn seed oil Non-standardized fixed oil N/A Oil: up to 5 q N/A Standardized fixed oil As per Table 3 Oil: up to 5 q and LA, ALA and/or OA as per Table 3*. LA, ALA, OA Sea buckthorn fruit oil Non-standardized fixed oil N/A Oil: up to 5 g N/A Standardized fixed oil As per Table 3 Oil: up to 5 g and LA, ALA and/or OA as per Table 3*. LA, ALA, OA Krill oil Standardized fixed oil As per Krill oil monograph As per Krill oil monograph EPA, DHA, DPA As per Table 3 Oil: up to 4.1 g and EPA and DHA as per Table 3* Flaxseed oil Non-Standardized fixed oil As per Flaxseed oil monograph As per Flaxseed oil monograph N/A Standardized fixed oil As per Table 3 Oil: up to 32 g and LA, ALA and/or OA as per Table 3* LA, ALA, OA Evening primrose oil Non-standardized fixed oil As per Evening primrose oil monograph As per Evening primrose oil monograph N/A Standardized fixed oil As per Table 3 Oil: up to 6 g and LA, ALA, GLA and/or OA as per Table 3* LA, ALA, GLA, OA Olive oil Non-standardized fixed oil Source of antioxidants/Provides antioxidants 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 Oil: up to 15 g N/A Standardized fixed oil Source of antioxidants/Provides antioxidants 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 and/or As per Table 3 Oil: up to 15 g and LA and/or OA as per Table 3* LA, OA Almond oil Non-standardized fixed oil N/A Oil: up to 15 g N/A Standardized fixed oil As per Table 3 Oil: up to 15 g and LA, ALA and/or OA as per Table 3* LA, ALA, OA Blackcurrant seed oil Non-standardized fixed oil N/A Oil: up to 10.5 g N/A Standardized fixed oil As per Table 3 Oil: up to 10.5 g and LA, ALA, GLA and/or OA as per Table 3* LA, ALA, GLA, OA Chia seed oil Non-standardized fixed oil N/A Oil: up to 4.5 g N/A Standardized fixed oil As per Table 3 Oil: up to 4.5 g and LA, ALA and/or OA as per Table 3* LA, ALA, OA Schizochytrium oil Standardized fixed oil Helps support cognitive/brain health/function DHA: 200-2,000 mg EPA, DHA As per Table 3 (except the use for cognitive health and/or brain function) Oil: up to 5 g and EPA and/or DHA as per Table 3* Seal oil Standardized fixed oil As per Seal oil monograph As per Seal oil monograph EPA, DHA, DPA As per Table 3 Oil: up to 10 g and EPA and DHA (and DPA) as per Table 3* Squid oil Non-standardized fixed oil N/A Oil: up to 5 g N/A Standardized fixed oil As per Table 3 Oil: up to 5 g and EPA and DHA as per Table 3* EPA, DHA Wheat germ oil Non-standardized fixed oil Source of antioxidants/Provides antioxidants 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 Oil: up to 15 g N/A Standardized fixed oil Source of antioxidants/Provides antioxidants 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 and/or As per Table 3 Oil: up to 15 g and LA, ALA and/or OA as per Table 3* LA, ALA, OA Grape seed oil Non-standardized fixed oil N/A Oil: up to 15 g N/A Standardized fixed oil As per Table 3 Oil: up to 15 g and LA, ALA and/or OA as per Table 3* LA, ALA, OA References: NNHPD 2023; Zielinska et al. 2017; Quinn et al. 2010; Yang et al. 1999; Leventhal et al. 1994. 1 The amount of fixed oils can also be represented in volumetric amount (i.e., mL) based on the density information listed in Appendix 1. *The total amount of a specific fatty acid (e.g., LA) in the product should meet the minimum dose as per Table 3 to

support a claim from this table. It is not required that each oil meets the minimum amount of specific fatty acids if the total amount of a fatty acid in the finished product meets it. Table 3. Uses or Purposes based on potency constituents - fatty acids Potency constituents: Fatty acids 1 Uses or Purposes Minimum Daily Doses 2 LA Source of linoleic acid (LA) for the maintenance of good health Source of omega-6 fatty acid for the maintenance of good health Source of an essential fatty acid for the maintenance of good health 850 mg ALA Source of alpha-linolenic acid (ALA) for the maintenance of good health Source of omega-3 fatty acid for the maintenance of good health Source of an essential fatty acid for the maintenance of good health 80 mg LA + ALA Source of essential fatty acids for the maintenance of good health 850 mg LA And 80 mg ALA EPA + DHA (+ DPA 3) Source of omega-3 fatty acids for the maintenance of good health Source of essential fatty acids for the maintenance of good health Source of eicosapentaenoic acid (EPA), (and) docosahexaenoic acid (DHA) (and docosapentaenoic acid (DPA) 3) for the maintenance of good health EPA + DPA: 100 mg Helps support/maintain cognitive health Helps support/maintain brain function 150 mg EPA + DHA including at least 100 mg DHA 4 Helps support/maintain (normal) heart/ cardiovascular health Helps support/maintain (normal) heart/ cardiovascular function EPA + DHA: 200 mg Helps support/maintain normal (blood) triglyceride/triacylglycerol levels Helps reduce (blood) triglyceride(s)/ triacylglycerol(s) (levels) EPA + DHA: 1000 mg EPA Source of eicosapentaenoic acid (EPA) for the maintenance of good health Source of omega-3 fatty acid for the maintenance of good health Source of an essential fatty acid for the maintenance of good health 100 mg DHA Source of docosahexaenoic acid (DHA) for the maintenance of good health Source of omega-3 fatty acid for the maintenance of good health Source of an essential fatty acid for the maintenance of good health 100 mg Helps support/maintain eye health/function Helps support/maintain visual health/function 200 mg DPA Source of docosapentaenoic acid (DPA) for the maintenance of good health Source of omega-3 fatty acid for the maintenance of good health Source of an essential fatty acid for the maintenance of good health 100 mg GLA Source of gamma-linoleic acid (GLA) for the maintenance of good health Source of omega-6 fatty acid for the maintenance of good health Source of an essential fatty acid for the maintenance of good health 100 mg OA Source of oleic acid (OA) 100 mg 1 For products making claims from this table, the potencies must be indicated for the relevant fatty acid constituents. 2 References: NNHPD 2023; EFSA 2010a; EFSA 2010b; EFSA 2009; Simopolous 2007; IOM 2006; IOM 2002; Simopolous 1999. 3 Docosapentaenoic acid (DPA) can be included in the claim if the potency information for this constituent is also listed. 4 For Schizochytrium oil, the specific quantity listed in Table 2 for the cognitive/brain health/function applies (i.e., DHA: 200 - 2000 mg per day). Notes: The above uses can be combined on the product label (e.g. Helps reduce triglycerides and maintain cardiovascular health). The terms 'Helps' or 'Helps to' can be used interchangeably on the label. The following potency information is considered as additional information and can be included on the label: XX% or mg total omega-3 (or omega-6) fatty acids. Direction(s) for use No statement required. Combination rules and restrictions A use or purpose statement is only acceptable if at least one medicinal ingredient/potency constituent associated with that statement is present at a dose at or above the minimum daily dose listed in Tables 2 and 3. Medicinal ingredients which do not meet the minimum daily dose for a use or purpose statement will be considered as acceptable complementary medicinal ingredients in product formulations. All medicinal ingredients included in this monograph may be combined with the following restrictions: The combined maximum daily dose of oils in a product must not exceed 15.0 g per day (NNHPD 2023). Maximum daily doses for individual medicinal ingredient as per Table 2 apply. The combined maximum daily dose of EPA+DHA in a single product must not exceed 5,000 mg for 18 years and older per day (US FDA 2019; EFSA 2012). Duration(s) of Use No statement required. Risk Information Caution(s) and warnings(s) Products containing Hemp seed oil, Sea buckthorn seed oil, Krill oil, Blackcurrant seed oil and/or Squid oil Ask a health care practitioner/health care provider/health care professional/doctor/physician before use if you are pregnant or breastfeeding. Products containing fish oil Pain of rheumatoid arthritis Ask a health care practitioner/health care provider/health care professional/doctor/physician if symptoms worsen. Healthy mood balance Ask a health care practitioner/health care provider/health care professional/doctor/physician before use if you have psychological disorders such as anxiety or depression. Contraindication(s) No statements required. Known adverse reaction(s) Products containing Krill oil and/or Squid oil Stop use if hypersensitivity/allergy occurs (HC 2017). Non-medicinal ingredients Must be chosen from the current Natural Health Products Ingredients Database (NHPID) and must meet the limitations outlined in that database. Storage conditions Must be established in accordance with the requirements described in the Natural Health Products Regulations. Products containing Schizochytrium oil, False flax oil, Hemp seed oil, Cod liver oil, Fish oil, Sea buckthorn seed oil, Krill oil, Flaxseed oil, Black current seed oil, Chia seed oil, Seal oil and Squid Oil except those encapsulated Refrigerate after opening (Wille and Gonus 1989). All products (information for industry; not for labelling) To be packaged in airtight container, protected from light (Ph.Eur. 2023; USP-NF 2023). 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 ingredients must comply with the requirements outlined in the NHPID. Cod liver oil, Fish oil, Krill oil, Seal oil and Squid oil are considered marine oils and therefore the requirements for the contaminants in marine oils of the NNHPD Quality of Natural Health Products Guide applies to products containing these ingredients apply. The requirements for the oxidative stability in oils of the NNHPD Quality of Natural Health Products Guide applies to all products containing any medicinal ingredient on this monograph. For all products indicating one or more of the potencies listed in the dose section, an assay must be performed in order to confirm the potency(ies). Fish oil from Gadidae species For fish oils including Gadidae as a source material, the vitamin A and D content should be tested to ensure that their respective daily maximum amounts meet the Multi-Vitamin/Mineral Supplements monograph for each age group. Hemp seed oil This monograph is for Cannabis sativa seed oil from hemp only. Hemp is defined in the Industrial Hemp regulations (IHR) as "a cannabis plant — or any part of that plant — in which the concentration of THC is 0.3% w/w or less in the flowering heads and leaves ". Approved hemp cultivars are set out in the List of Approved Cultivars, published by the Government of Canada on its website, as amended from time to time. Additional cultivars may be permitted such as those on the Association of Official Seed Certifying Agencies (AOSCA) list which also meet the definition of Hemp set out in the IHR. Products containing hemp seed oil must not contain more than 10 parts per million delta-9-Tetrahydrocannabinol (THC), or phytocannabinoids that have been isolated or concentrated, or synthetic duplicates of phytocannabinoids. The determination of the THC concentration must take into account the potential to convert delta-9-tetrahydrocannabinolic acid (THCA) to THC. Example of Product Facts Consult the Guidance Document, Labelling of Natural Health Products for more details. References cited Alamu OJ, Dehinbo O, Sulaiman AM. Production and testing of coconut oil biodiesel fuel and its blend. Leonardo Journal of Sciences. 2010;16:95-104, the Medicines and Healthcare products Regulatory Agency (MHRA); 2023. Budavari, S., Ed. Evening primrose oil (monograph number 3953) and Linoleic acid (monograph number 5529). 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Scientific Opinion: Scientific opinion on the substantiation of health claims related to EPA, DHA, DPA and maintenance of normal blood pressure (ID 502), maintenance of normal HDL-cholesterol concentrations (ID 515), maintenance of normal (fasting) blood concentrations of triglycerides (ID 517), maintenance of normal LDL-cholesterol concentrations (ID 528, 698) and maintenance of joints (ID 503, 505, 507, 511, 518, 524, 526, 535, 537) pursuant to Article 13(1) of Regulation (EC) No 1924/2006. EFSA Panel of Dietetic Products, Nutrition and Allergies (NDA). EFSA Journal 1263. [Accessed 2023 March 07]. Available http://www.efsa.europa.eu/en/efsajournal/doc/1263.pdf EFSA 2010a. Scientific Opinion on the substantiation of health claims related to docosahexaenoic acid (DHA) and maintenance of normal (fasting) blood concentrations of triglycerides (ID 533, 691, 3150), protection of blood lipids from oxidative damage (ID 630), contribution to the maintenance or achievement of a normal body weight (ID 629), brain, eye and nerve development (ID 627, 689, 704, 742, 3148, 3151), maintenance of normal brain function (ID 565, 626, 631, 689, 690, 704, 742, 3148, 3151), maintenance of normal vision (ID 627, 632, 743, 3149) and maintenance of normal spermatozoa motility (ID 628) pursuant to Article 13(1) of Regulation (EC) No 1924/20061. EFSA Panel on Dietetic Products, Nutrition and Allergies (NDA). EFSA Journal 2010; 8(10):1734. [Accessed 2023 March 07]. Available from: http://www.efsa.europa.eu/en/efsajournal/doc/1734.pdf. EFSA 2010b. Scientific Opinion on the substantiation of health claims related to eicosapentaenoic acid (EPA), docosahexaenoic acid (DHA), docosapentaenoic acid (DPA) and maintenance of normal cardiac function (ID 504, 506, 516, 527, 538, 703, 1128, 1317, 1324, 1325), maintenance of normal blood glucose concentrations (ID 566), maintenance of normal blood pressure (ID 506, 516, 703, 1317, 1324), maintenance of normal blood HDL-cholesterol concentrations (ID 506), maintenance of normal (fasting) blood concentrations of triglycerides (ID 506, 527, 538, 1317, 1324, 1325), maintenance of normal blood LDL-cholesterol concentrations (ID 527, 538, 1317, 1325, 4689), protection of the skin from photo-oxidative (UV-induced) damage (ID 530), improved absorption of EPA and DHA (ID 522, 523), contribution to the normal function of the immune system by decreasing the levels of eicosanoids, arachidonic acid-derived mediators and pro-inflammatory cytokines (ID 520, 2914), and "immunomodulating agent" (4690) pursuant to Article 13(1) of Regulation (EC) No 1924/2006. 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Washington (DC): The National Academies Press; 2002. ITIS 2023: Integrated Taxonomic Information System. Taxon Based on Biological Information System. Canadian Biodiversity Information Facility, Government of Canada. [Accessed 2023 March 07]. Available from: http://www.cbif.gc.ca/acp/eng/itis/search Karvonen HM, Aro A, Tapola NS, Salminen I, Uusitupa MIJ, Sarkkinen ES. Effect of ?-linolenic acid-rich Camelina sativa oil on serum fatty acid composition and serum lipids in hypercholesterolemic subjects. Metabolism 2002;51(10):1253-1260. Kyte R.M. Technological studies on the processing of sea lions. Commercial fisheries review 1956;18(6). Lee H-Y, Hague A.S.M. T, Kim S-B, Lee T-B, Chun B-S. Effect of reaction parameters on conversion of krill (Euphausia superba) oil by immobilized lipase ethanolysis. Journal of Industrial and Engineering Chemistry 2014;20(3):1097-1102. Leventhal LJ, Boyce EG, Zurier RB. Treatment of rheumatoid arthritis with blackcurrant seed oil. 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Appendix I Density of the fixed oils Fixed oils Parts Density Borage oil Seed 0.908 - 0.925 g/mL False flax oil Seed 0.918 - 0.927 g/mL Hemp Seed Oil Non-viable seed 0.920 - 0.930 g/mL Canola Oil Seed 0.917 - 0.923 g/mL* Safflower Oil Seed 0.918 - 0.937 g/mL Coconut Oil Seed endosperm 0.913 - 0.919 g/mL Cod liver oil Liver 0.921 - 0.927 g/mL Pumpkin seed oil Seed 0.901 -0.924 g/mL Fish oil Whole 0.929 - 0.931 g/mL Sunflower oil Seed 0.919 - 0.920 g/mL Sea buckthorn fruit oil Fruit 0.913 - 0.919 g/mL Sea buckthorn seed oil Seed 0.913 - 0.919 g/mL Krill oil Whole 0.919 - 0.925 g/mL* Flaxseed oil Seed 0.928 - 0.935 g/mL Evening Primrose Oil Seed 0.918 - 0.930 g/mL Olive oil Fruit 0.908 -0.914 g/mL Sweet Almond Oil Seed 0.913 - 0.919 g/mL* Blackcurrant seed oil Seed 0.919 - 0.926 g/mL Chia seed oil Seed 0.922 - 0.927 g/mL Schizochytrium Oil (algal oil) Whole 0.944 - 0.950 g/mL Seal oil Blubber 0.921 - 0.927 g/mL* Squid oil Whole 0.953 - 0.959 g/mL* Wheat germ oil Seed germ 0.922 - 0.937 g/mL Grape Seed oil Seed 0.921 - 0.924 g/mL *When only a single value was found in the evidence, a variation of +/- 0.003 q/mL was applied to allow for potential variability. At least one of the following references was used to support density ranges: Moovendhan 2023; Turck et al. 2021; Purnamayati et al. 2019; Uzunova et al. 2019; Delgado-et al. 2018; Petcu et al. 2016; Lee et al. 2014; Edwin et al. 2013; Firestone 2013; Manisha and Sharma 2011; Zhang et al. 2011; Alamu et al. 2010; Budavari 1996; Subrahmanyam et al. 1994; Kyte R.M. 1956. Report a problem on this page Date modified: 2019-03-01

MEDICINAL INGREDIENT(S)

Notes This monograph only covers naturally-occurring fatty acids in each fixed oil, including concentrated oils, but excludes fixed oils spiked with additional fatty acids. Essential/volatile oil preparations (e.g. those prepared by distillation) are not within the scope of this monograph. Hydrogenated oils and partially hydrogenated oils are not within the scope of this monograph. This monograph may be used to support single ingredient or multi-ingredient products containing any medicinal ingredient from Table 1.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 or statements are synonymous. Either term or statement may be selected by the applicant on the label. Date March 28, 2025 Proper name(s), Common name(s), and Source information Table 1. Proper name(s). Common name(s) and Source informationProper name(s)Common name(s)Source informationSource material(s)Part(s)Borago officinalisBorage oilBorage seed oilBorago officinalisSeedCamelina sativaFalse flax oilCamelina sativaSeedCannabis sativaHemp seed oilCannabis sativaNon-viable SeedCanola OilCanola oilColza oilRapeseed oilBrassica napusBrassica junceaBrassica rapaSeedCarthamus tinctoriusSafflower oilCarthamus tinctoriusSeedCocos nuciferaCoconut oilCocos nuciferaSeed endospermCod liver oilCod liver oilLecoris aselli oleumGadidae1LiverCucurbita pepoPumpkin seed oilCucurbita pepoSeedFish oil2Fish oilAmmodytidaeCarangidaeClupeidaeEngraulidaeGadidae3Osmerid aeSalmonidaeScombridaeWholeHelianthus annuusSunflower oilHelianthus annuusSeedHippophae rhamnoidesSea buckthorn fruit oilHippophae rhamnoidesFruitSea buckthorn oilHippophae seed rhamnoidesSeedKrill oilKrill oilEuphasia pacificaEuphausia superbaWholeLinum usitatissimumFlax oilFlaxseed oilLinseed oilLinum usitatissimumSeedOenothera biennisEvening primrose oilPrimrose oilOenothera biennisSeedOlea europaeaOlive oilOlea europaeaFruitPrunus dulcisAlmond oilSweet almond oilPrunus dulcisSeedRibes nigrumBlackcurrant seed oilRibes nigrumSeedSalvia hispanicaChia seed oilSalvia hispanicaSeedSchizochytrium sppSchizochytrium oilSchizochytrium spp.WholeSeal oilSeal oilCystophora barbatusHalichoerus grypusPagophilus groenlandicusPhoca cristataErignathus vitulinaPusa hispidaBlubberSquid pacificusDocidicus oilSauid oilTodarodes gigasIllex argentinusIllex illecebrosusWholeTriticum aestivumWheat germ oilTriticum aestivumSeed germVitis viniferaGrape seed oilVitis viniferaSeed

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.

USE(S) OR PURPOSE(S)

Medicinal ingredientMethods of preparationUses or PurposesDaily Dose1Potency Constituents Borage oilNon-standardized fixed oilAs per Borage oil monographAs per Borage oil monographN/AStandardized fixed oilAs per Table 30il: up to 5 g and LA, ALA, GLA and/or OA as per Table 3*LA, ALA, GLA, OAHemp seed oilNon-standardized fixed oilN/AOil: up to 15 gN/AStandardized fixed oilAs per Table 3Oil: up to 15 g and LA, ALA, GLA and/or OA as per Table 3*LA, ALA, GLA, OACanola oilNon-standardized fixed oilN/AOil: up to 15 gN/AStandardized fixed oilAs per Table 30il: up to 15 g and LA, ALA and/or OA as per Table 3*.LA, ALA, OAFalse flax OilNon-standardized fixed oilN/AOil: up to 15 gN/AStandardized fixed oilAs per Table 3Oil: up to 15 g and LA, ALA and/or OA as per Table 3*.LA, ALA, OASafflower oilNon-standardized fixed oilN/AOil: up to 15 gN/AStandardized fixed oilAs per Table 30il: up to 15 g and LA, ALA and/or OA as per Table 3*.LA, ALA, OACoconut oilNon-standardized fixed oilSource of 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oilSource of antioxidants/Provides antioxidantsSource 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 and/orAs per Table 3Oil: up to 15 g and LA and/or OA as per Table 3*LA, OAAlmond oilNon-standardized fixed oilN/AOil: up to 15 gN/AStandardized fixed oilAs per Table 3Oil: up to 15 g and LA, ALA and/or OA as per Table 3*LA, ALA, OABlackcurrant seed oilNon-standardized fixed oilN/AOil: up to 10.5 gN/AStandardized fixed oilAs per Table 3Oil: up to 10.5 g and LA, ALA, GLA and/or OA as per Table 3*LA, ALA, GLA, OAChia seed oilNon-standardized fixed oilN/AOil: up to 4.5 gN/AStandardized fixed oilAs per Table 30il: up to 4.5 g and LA, ALA and/or OA as per Table 3*LA, ALA, OASchizochytrium oilStandardized fixed oilHelps support cognitive/brain health/functionDHA: 200-2,000 mgEPA, DHAAs per Table 3 (except the use for cognitive health and/or brain function)Oil: up to 5 g and EPA and/or DHA as per Table 3*Seal oilStandardized fixed oilAs per Seal oil monographAs per Seal oil monographEPA, DHA, DPAAs per Table 30il: up to 10 g and EPA and DHA (and DPA) as per Table 3*Squid oilNon-standardized fixed oilN/AOil: up to 5 gN/AStandardized fixed oilAs per Table 3Oil: up to 5 g and EPA and DHA as per Table 3*EPA, DHAWheat germ oilNon-standardized fixed oilSource of antioxidants/Provides antioxidantsSource 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 radicalsOil: up to 15 gN/AStandardized fixed oilSource of antioxidants/Provides antioxidantsSource 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 and/orAs per Table 3Oil: up to 15 g and LA, ALA and/or OA as per Table 3*LA, ALA, OAGrape seed oilNon-standardized fixed oilN/AOil: up to 15 gN/AStandardized fixed oilAs per Table 3Oil: up to 15 g and LA, ALA and/or OA as per Table 3*LA, ALA, OA

RISK INFORMATION

Caution(s) and warnings(s) Products containing Hemp seed oil, Sea buckthorn seed oil, Krill oil, Blackcurrant seed oil and/or Squid oil Ask a health care practitioner/health care provider/health care professional/doctor/physician before use if you are pregnant or breastfeeding. Products containing fish oil Pain rheumatoid arthritis Ask а health care practitioner/health care provider/health professional/doctor/physician if symptoms worsen. Healthy mood balance Ask a health care practitioner/health care provider/health care professional/doctor/physician before use if you have psychological disorders such as anxiety or depression. Contraindication(s) No statements required. Known adverse reaction(s) Products containing Krill oil and/or Squid oil Stop use if hypersensitivity/allergy occurs (HC 2017).

NON-MEDICINAL INGREDIENTS

Must be chosen from the current Natural Health Products Ingredients Database (NHPID) and must meet the limitations outlined in that database. Storage conditions Must be established in accordance with the requirements described in theNatural Health Products Regulations. Products containing Schizochytrium oil, False flax oil, Hemp seed oil, Cod liver oil, Fish oil, Sea buckthorn seed oil, Krill oil, Flaxseed oil, Black current seed oil, Chia seed oil, Seal oil and Squid Oil except those encapsulated Refrigerate after opening (Wille and Gonus 1989). All products (information for industry; not for labelling) To be packaged in airtight container, protected from light (Ph.Eur. 2023; USP-NF 2023).

STORAGE CONDITION(S)

Must be established in accordance with the requirements described in theNatural Health Products Regulations. Products containing Schizochytrium oil, False flax oil, Hemp seed oil, Cod liver oil, Fish oil, Sea buckthorn seed oil, Krill oil, Flaxseed oil, Black current seed oil, Chia seed oil, Seal oil and Squid Oil except those encapsulated Refrigerate after opening (Wille and Gonus 1989). All products (information for industry; not for labelling) To be packaged in airtight container, protected from light (Ph.Eur. 2023; USP-NF 2023).

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 ingredients must comply with the requirements outlined in the NHPID. Cod liver oil, Fish oil, Krill oil, Seal oil and Squid oil are considered marine oils and therefore the requirements for the contaminants in marine oils of the NNHPD Quality of Natural Health Products Guide applies to products containing these ingredients apply. The requirements for the oxidative stability in oils of the NNHPD Quality of Natural Health Products Guide applies to all products containing any medicinal ingredient on this monograph. For all products indicating one or more of the potencies listed in the dose section, an assay must be

performed in order to confirm the potency(ies). Fish oil from Gadidae species For fish oils including Gadidae as a source material, the vitamin A and D content should be tested to ensure that their respective daily maximum amounts meet the Multi-Vitamin/Mineral Supplements monograph for each age group. Hemp seed oil This monograph is for Cannabis sativa seed oil from hemp only. Hemp is defined in theIndustrial Hemp regulations(IHR) as "a cannabis plant — or any part of that plant — in which the concentration of THC is 0.3% w/w or less in the flowering heads and leaves". Approved hemp cultivars are set out in the List of Approved Cultivars, published by the Government of Canada on its website, as amended from time to time. Additional cultivars may be permitted such as those on the Association of Official Seed Certifying Agencies (AOSCA) list which also meet the definition of Hemp set out in the IHR. Products containing hemp seed oil must not contain more than 10 parts per million delta-9-Tetrahydrocannabinol (THC), or phytocannabinoids that have been isolated or concentrated, or synthetic duplicates of phytocannabinoids. The determination of the THC concentration must take into account the potential to convert delta-9-tetrahydrocannabinolic acid (THCA) to THC. Example of Product Facts

REFERENCES

1Cod liver oil:The species common names and not the family could be listed on the label.2Fish oil:Corresponds to oil from the whole body of one or more species of the families listed in Table 1 in its natural and/or concentrated triglyceride/triacylglycerol form and/or its concentrated esterified form (BP 2023; Ph.Eur. 2023; Froese and Pauly 2022). The species common names and not the family could be listed on the label.3Fish oil:For fish oils including species of Gadidae as a source material, the vitamin A and D content should be tested to ensure that the daily maximum amounts meet the Multi-Vitamin/Mineral Supplements monograph for each age group. Route of administration Oral

| Proper name(s) | Common name(s) | Source information | |
|------------------------|-----------------------------------|---|---------------------------|
| Source material(s) | Part(s) | | |
| Borago officinalis | Borage oilBorage seed oil | Borago officinalis | Seed |
| Camelina sativa | False flax oil | Camelina sativa | Seed |
| Cannabis sativa | Hemp seed oil | Cannabis sativa | Non-viable Seed |
| Canola Oil | Canola oilColza oilRapeseed oil | Brassica napusBrassica junceaBrassica rap | aSeed |
| Carthamus tinctorius | Safflower oil | Carthamus tinctorius | Seed |
| Cocos nucifera | Coconut oil | Cocos nucifera | Seed endosperm |
| Cod liver oil | Cod liver oilLecoris aselli oleum | Gadidae1 | Liver |
| Cucurbita pepo | Pumpkin seed oil | Cucurbita pepo | Seed |
| Fish oil2 | Fish oil | AmmodytidaeCarangidaeClupeidaeEngraul | da/da/catelidae3Osmeridae |
| Helianthus annuus | Sunflower oil | Helianthus annuus | Seed |
| Hippophae rhamnoides | Sea buckthorn fruit oil | Hippophae rhamnoides | Fruit |
| Sea buckthorn seed oil | Hippophae rhamnoides | Seed | |
| Krill oil | Krill oil | Euphasia pacificaEuphausia superba | Whole |
| _inum usitatissimum | Flax oilFlaxseed oilLinseed oil | Linum usitatissimum | Seed |
| Oenothera biennis | Evening primrose oilPrimrose oil | Oenothera biennis | Seed |
| Olea europaea | Olive oil | Olea europaea | Fruit |
| Prunus dulcis | Almond oilSweet almond oil | Prunus dulcis | Seed |

| Ribes nigrum | Blackcurrant seed oil | Ribes nigrum | Seed |
|--------------------|-----------------------|---|-------------------------------------|
| Salvia hispanica | Chia seed oil | Salvia hispanica | Seed |
| Schizochytrium spp | Schizochytrium oil | Schizochytrium spp. | Whole |
| Seal oil | Seal oil | Cystophora cristataErignathus barbatusHali | c holebbe grypusPagophilu |
| Squid oil | Squid oil | Todarodes pacificusDocidicus gigasIllex arg | e M/inols illex illecebrosus |
| Triticum aestivum | Wheat germ oil | Triticum aestivum | Seed germ |
| Vitis vinifera | Grape seed oil | Vitis vinifera | Seed |

| Methods of preparation | Uses or Purposes | Daily Dose1 | Potenc |
|--|--|---|---------------------|
| Non-standardized fixed oil | As per Borage oil monograph | As per Borage oil monograph | N/A |
| As per Table 3 | Oil: up to 5 g and LA, ALA, GLA and/or OA | aslaepatandieba, oa | |
| Non-standardized fixed oil | N/A | Oil: up to 15 g | N/A |
| As per Table 3 | Oil: up to 15 g and LA, ALA, GLA and/or OA | alsAperLTa,kBeLA; OA | |
| Non-standardized fixed oil | N/A | Oil: up to 15 g | N/A |
| As per Table 3 | Oil: up to 15 g and LA, ALA and/or OA as pe | erLTAgbAda_A*,OA | |
| Non-standardized fixed oil | N/A | Oil: up to 15 g | N/A |
| As per Table 3 | Oil: up to 15 g and LA, ALA and/or OA as po | erL 7 5ab A4_8 *,.OA | |
| Non-standardized fixed oil | N/A | Oil: up to 15 g | N/A |
| As per Table 3 | Oil: up to 15 g and LA, ALA and/or OA as pe | erLTAgbAda_8.*,.OA | |
| Non-standardized fixed oil | Source of antioxidants/Provides antioxidants | ടയി പ്രവും ഡ് 45tig oxidants/Provides antioxidants | t lN atAhelp |
| Source of antioxidants/Provides antioxidants | SSDilurop tof afitigoxidantaA/,FAtoAidersdeontiOAideenpa | ethகூ bheliக ர்ஞோ/protect (cell) against/reduce (t | he oxidati |
| Standardized fixed oil | As per Cod liver oil monograph | As per Cod liver oil monograph | EPA, D |
| Oil: up to 4 g and Minimum amounts of EPA | and DHA as per Table 3* and Maximum amo | unts of EPA, DHA, Vitamin A and Vitamin D | as per the |
| Non-standardized fixed oil | N/A | Oil: up to 15 g | N/A |
| As per Table 3 | Oil: up to 15 g and LA and/or OA as per Tab | le_B; OA | |
| Standardized fixed oil | As per Fish oil monograph | As per Fish oil monograph | EPA, D |
| Oil: up to 10 g and EPA and DHA as per Ta | ble 3* | | |
| Non-standardized fixed oil | Source of antioxidants/Provides antioxidants | s இய் ாரு ம் 45tig oxidants/Provides antioxidants | t lN ##help |
| Source of antioxidants/Provides antioxidants | SSONUTOR OF THE PAIN AUTO BIOLOGIC OF THE CONTROL O | ዜæ;tውው fight/protect (cell) against/reduce (t | ne oxidati |
| Non-standardized fixed oil | N/A | Oil: up to 5 g | N/A |
| As per Table 3 | Oil: up to 5 g and LA, ALA and/or OA as per | TaholehBA, OA | |
| Non-standardized fixed oil | N/A | Oil: up to 5 g | N/A |
| As per Table 3 | Oil: up to 5 g and LA, ALA and/or OA as pe | TalkoleABA, OA | |
| Standardized fixed oil | As per Krill oil monograph | As per Krill oil monograph | EPA, D |
| Oil: up to 4.1 g and EPA and DHA as per Ta | ble 3* | | |
| Non-Standardized fixed oil | As per Flaxseed oil monograph | As per Flaxseed oil monograph | N/A |
| As per Table 3 | Oil: up to 32 g and LA, ALA and/or OA as pe | erLTABbA4LAB*, OA | |
| Non-standardized fixed oil | As per Evening primrose oil monograph | As per Evening primrose oil monograph | N/A |
| | | | |

| | As per Table 3 | Oil: up to 6 g and LA, ALA, GLA and/or OA | aslae/Ac/Ac/Ac/BA, OA | |
|-----------|--|---|---|---------------------|
| | Non-standardized fixed oil | Source of antioxidants/Provides antioxidants | ട ്യിധാരം ൾ 45 ti o xidants/Provides antioxidants | t lN atAhelp |
| | Source of antioxidants/Provides antioxidants | Schillrop to a 5 tigo xida huta/Brod/ode 9 Anatico xieta Tata | ևևՁէ ի Թ Քթ fight/protect (cell) against/reduce (t | ne oxidati |
| | Non-standardized fixed oil | N/A | Oil: up to 15 g | N/A |
| | As per Table 3 | Oil: up to 15 g and LA, ALA and/or OA as pe | erLTAqbAdL&*, OA | |
| | Non-standardized fixed oil | N/A | Oil: up to 10.5 g | N/A |
| | As per Table 3 | Oil: up to 10.5 g and LA, ALA, GLA and/or C | ALAS ABATAMA,330A | |
| | Non-standardized fixed oil | N/A | Oil: up to 4.5 g | N/A |
| | As per Table 3 | Oil: up to 4.5 g and LA, ALA and/or OA as p | elāabba;*OA | |
| | Standardized fixed oil | Helps support cognitive/brain health/function | n DHA: 200-2,000 mg | EPA, D |
| cognitive | h ⊜ ailttupa tool√sog bara on EtuPa⁄c takonod/or DHA as per T | able 3* | | |
| | Standardized fixed oil | As per Seal oil monograph | As per Seal oil monograph | EPA, D |
| | Oil: up to 10 g and EPA and DHA (and DPA |) as per Table 3* | | |
| | Non-standardized fixed oil | N/A | Oil: up to 5 g | N/A |
| | As per Table 3 | Oil: up to 5 g and EPA and DHA as per Tab | e⊞°A, DHA | |
| | Non-standardized fixed oil | Source of antioxidants/Provides antioxidants | ട ാ ilur op ໝ໌ 45tig oxidants/Provides antioxidants | t lN atAhelp |
| | Source of antioxidants/Provides antioxidants | Schilurop to a 6 tigo xidel nutel/PArb Aidersoleon ti@Aideso pa | etbanbalafight/protect (cell) against/reduce (t | ne oxidati |
| | Non-standardized fixed oil | N/A | Oil: up to 15 g | N/A |
| | As per Table 3 | Oil: up to 15 g and LA, ALA and/or OA as po | erLTAqbA4LA; OA | |
| | | | | |

| Potency constituents: Fatty acids1 | Uses or Purposes | Minimum Daily Doses2 | |
|--|--|---|--------|
| LA | Source of linoleic acid (LA) for the maintena | n 85 @nggod healthSource of omega-6 fatt | y acid |
| ALA | Source of alpha-linolenic acid (ALA) for the | m&untegance of good healthSource of ome | ega-3 |
| LA + ALA | Source of essential fatty acids for the mainte | en&a50cenogflg%soAthble&0thngALA | |
| EPA + DHA (+ DPA3) | Source of omega-3 fatty acids for the mainte | erfalPle-oD@wodl00athlgSource of essential | fatty |
| Helps support/maintain cognitive healthHelp | s ട്രോസ്സെന്റേഷ് RAAntaDHbAaimcfuudictiopat least 100 n | ng DHA4 | |
| Helps support/maintain (normal) heart/ card | o <mark>ଅଞ୍ଚଳ ଧୋଣ⊅ HA ଇଥିଉପ enho</mark> s support/maintain (norm | nal) heart/ cardiovascular function | |
| Helps support/maintain normal (blood) trigly | ceErRAe/#riDckyAgly1@@@lnhegvelsHelps reduce (bloo | d) triglyceride(s)/ triacylglycerol(s) (levels |) |
| EPA | Source of eicosapentaenoic acid (EPA) for | het@nammenance of good healthSource of | omeç |
| DHA | Source of docosahexaenoic acid (DHA) for | hethamgenance of good healthSource of | ome |
| Helps support/maintain eye health/functionh | eമൂളെ srugport/maintain visual health/function | | |
| DPA | Source of docosapentaenoic acid (DPA) for | the@naigtenance of good healthSource of | ome |
| GLA | Source of gamma-linoleic acid (GLA) for the | ரியிர்tegance of good healthSource of on | nega- |
| OA | Source of oleic acid (OA) | 100 mg | |

| Fixed oils | Parts | Density |
|------------|-------|--------------------|
| Borage oil | Seed | 0.908 - 0.925 g/mL |

| False flax oil | Seed | 0.918 - 0.927 g/mL |
|--------------------------------|-----------------|---------------------|
| Hemp Seed Oil | Non-viable seed | 0.920 - 0.930 g/mL |
| Canola Oil | Seed | 0.917 - 0.923 g/mL* |
| Safflower Oil | Seed | 0.918 - 0.937 g/mL |
| Coconut Oil | Seed endosperm | 0.913 - 0.919 g/mL |
| Cod liver oil | Liver | 0.921 - 0.927 g/mL |
| Pumpkin seed oil | Seed | 0.901 - 0.924 g/mL |
| Fish oil | Whole | 0.929 - 0.931 g/mL |
| Sunflower oil | Seed | 0.919 - 0.920 g/mL |
| Sea buckthorn fruit oil | Fruit | 0.913 - 0.919 g/mL |
| Sea buckthorn seed oil | Seed | 0.913 - 0.919 g/mL |
| Krill oil | Whole | 0.919 - 0.925 g/mL* |
| Flaxseed oil | Seed | 0.928 - 0.935 g/mL |
| Evening Primrose Oil | Seed | 0.918 - 0.930 g/mL |
| Olive oil | Fruit | 0.908 - 0.914 g/mL |
| Sweet Almond Oil | Seed | 0.913 - 0.919 g/mL* |
| Blackcurrant seed oil | Seed | 0.919 - 0.926 g/mL |
| Chia seed oil | Seed | 0.922 - 0.927 g/mL |
| Schizochytrium Oil (algal oil) | Whole | 0.944 - 0.950 g/mL |
| Seal oil | Blubber | 0.921 - 0.927 g/mL* |
| Squid oil | Whole | 0.953 - 0.959 g/mL* |
| Wheat germ oil | Seed germ | 0.922 - 0.937 g/mL |
| Grape Seed oil | Seed | 0.921 - 0.924 g/mL |