



SEAL OIL

- Date:** February 8, 2007
- Proper name(s):** Seal oil (Brox *et al.* 2001; Østerud *et al.* 1995)
- Common name(s):** Seal oil (Brox *et al.* 2001; Østerud *et al.* 1995)
- Source material(s):** Oil from the blubber of any of the following species (MMR 1993):
- Bearded seal (*Erignathus barbatus*) (ITIS 2007)
 - Gray seal (*Halichoerus grypus*) (ITIS 2007)
 - Harbor seal (*Phoca vitulina*) (ITIS 2007)
 - Harp seal (*Pagophilus groenlandicus*) (ITIS 2007)
 - Hooded seal (*Cystophora cristata*) (ITIS 2007)
 - Ringed seal (*Phoca hispida*) (ITIS 2007)
- (in its natural triglyceride (triacylglycerol) form)
- Route(s) of administration:** Oral
- Dosage form(s):** Those suited to the allowable route of administration.
- Use(s) or Purpose(s):** Statement(s) to the effect of:
- For all products:
- ▶ Source of omega-3 fatty acids for the maintenance of good health (IOM 2002; Brox *et al.* 2001; FDA 1997)
 - ▶ Source of eicosapentaenoic acid (EPA), (and/or) docosahexaenoic acid (DHA), (and/or) docosapentaenoic acid (DPA) for the maintenance of good health (IOM 2002; Brox *et al.* 2001; FDA 1997)

For products providing 150-2500 mg EPA+DHA including at least 150 mg DHA in a daily dose and indicated for children 1-18 years of age (maximum doses of EPA+DHA in Table 1 below will apply):

- ▶ Source of docosahexaenoic acid (DHA) to help support the development of the brain, eyes and nerves (Marsalek and Lodish 2005; Haag 2003; FDA 1997)

Dose(s):

Subpopulation: See Table 1.

Quantity:

Table 1: Daily doses of EPA+DHA in seal oil according to subpopulation

Subpopulation	Daily dose of EPA+DHA
Children 1-8 years	100-1500 mg ^{1,2}
Children 9-13 years	100-2000 mg ^{1,2}
Children 14-18 years	100-2500 mg ^{1,2}
Adults 19 years and older	100-3000 mg ^{1,3}

¹Restrictions to minimum dose may apply according to Use(s) or Purpose(s) section above.

²Maximum dose calculated as a fraction of the adult dose relative to body weight and caloric intake.

³IOM 2002; FDA 1997

Potency must be expressed as the percentages (%) or amounts (mg) of EPA, DHA and/or DPA.

Duration of use: No statement required

Risk information: No statement required

Storage conditions: Statement to the effect of:

For non-encapsulated products:
Refrigerate after opening (Wille and Gonus 1989).

Non-medicinal ingredients: Must be chosen from the current NHPD List of Acceptable Non-medicinal Ingredients and must meet the limitations outlined in the list.

Specifications: Must comply with the minimum specifications outlined in the current NHPD Compendium of Monographs.

References:

Brox J, Olaussen K, Østerud B, Elvevoll EO, Bjornstad E, Brattebog G, Iversen H. A long-term seal- and cod-liver-oil supplementation in hypercholesterolemic subjects. *Lipids* 2001;36(1):7-13.

FDA 1997: USA Department of Health and Human Services: Food and Drug Administration. 21 CFR 184 Substances affirmed as generally regarded as safe: menhaden oil; 1997. [Accessed 2007-02-01]. Available at: <http://www.cfsan.fda.gov/~lrd/fr970417.html>.

Haag M. Essential fatty acids and the brain. *Canadian Journal of Psychiatry* 2003; 48(3):195-203.

IOM 2002: Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids. Food and Nutrition Board, Institute of Medicine. Washington (DC): National Academy Press; 2001.

ITIS 2007: Integrated Taxonomic Information System, Canadian Biodiversity Information Facility, Government of Canada [Accessed 2007-02-01]. Available at: http://www.cbif.gc.ca/pls/itisca/taxaget?p_ifx=cbif.

Marsalek JR, Lodish HF. Docosahexaenoic acid, fatty acid-interacting proteins, and neuronal function: breastmilk and fish are good for you. *Annual Review of Cell and Developmental Biology* 2005;21:633-657.

MMR 1993: Marine Mammal Regulations. SOR/93-56. Fisheries Act. Ottawa (ON): Government of Canada; 1993. [Accessed 2006-03-09]. Available at: <http://laws.justice.gc.ca/en/f-14/sor-93-56/text.html>.

Østerud B, Elvevoll EO, Barstad H, Brox J, Halvorsen H, Lia K, Olsen JO, Olsen RL, Sissener C, Rekdal Ø, Vognild E. Effect of marine oils supplementation on coagulation and cellular activation in whole blood. *Lipids* 1995;30(12):1111-1118.

Wille HJ, Gonus P. Preparation of fish oil for dietary applications. In: Galli C, Simopolous AP, editors. Dietary ω 3 and ω 6 fatty acids. Biological effects and nutritional essentiality. New York (NY): Plenum Press; 1989.