



Version No. 041.002_14_S, Date: 04.05.2021

General Specification

Seabuckthorn Seed CO2-to extract

Type No. 041.002



Raw material:	<i>Hippophae rhamnoides</i> -Seeds, dried
Production:	By supercritical fluid extraction with natural carbon dioxide no solvent residues, no inorganic salts, no heavy metals, no reproducible microorganisms [1]. The extract is stabilized with FLAVEX Rosemary Antioxidant.
D/E - ratio:	11 - 17 kg seabuckthorn seeds to 1 kg product.
Organoleptic description:	Orange-yellow, clear oil with the typical smell of seabuckthorn.
Composition:	99,9 % Seabuckthorn Seed CO2-to extract 0,1 % antioxidant extracts of rosemary
Ingredients:	Fatty oil with a high content of polyunsaturated fatty acids including 14 - 21 % oleic acid (C18:1), 34 - 41 % linoleic acid (C18:2) and 24 - 35 % alpha-linolenic acid (C18:3), 1 - 6 % of unsaponifiable ingredients such as carotenoids, alkanols, tocopherols, sterols.
Declaration:	In food: flavouring preparation or seabuckthorn seed extract In food supplements: seabuckthorn seed extract, antioxidant extracts of rosemary (if the additive exerts a technological effect in the finished product, otherwise declaration of the additive may be omitted) In cosmetics: INCI-Name: Hippophae Rhamnoides Kernel Extract, CAS-No. 90106-68-6, EINECS-No. 290-292-8 and Rosmarinus Officinalis Leaf Extract, CAS-No. 84604-14-8, EINECS-No. 283-291-1 (INCI Key G: less than or equal to 0,1 %)
Application:	Traditional use: Sea buckthorn oil promotes wound healing and has an analgesic effect, which is why it is traditionally used in Russia in particular for skin damage caused by high-energy radiation (e.g. sunlight). It is also used for burns and for the treatment of necrotic wounds and stomach ulcers [2,3,4]. Internal applications of sea buckthorn oil reduce the cholesterol level in the blood and can thus prevent cardiovascular diseases. In folk medicine, the oil is used to relieve the symptoms of chronic stomach ulcers and other stomach diseases [5]. In food: The extract can be used for flavouring fruit and vegetable preparations, juices, other beverages

and food. Sea buckthorn is also used in salad dressings.

In food supplements:

In food supplements, sea buckthorn extract is suitable for regulating fat metabolism in cases of deficiency of essential fatty acids due to its high content of unsaturated fatty acids. The alpha-linolenic acid contained in the extract also contributes to maintaining normal blood cholesterol concentrations [5].

In cosmetics:

The unsaturated fatty acids contained in the extract increase the skin moisture. In addition, sea buckthorn oil has antioxidant and anti-inflammatory effects. The extract is therefore particularly suitable for use in anti-aging products, skin care products, especially for dry and chapped skin, products against skin impurities and caring soaps. Sea buckthorn can also be used in sunscreen and after sun products. In addition, sea buckthorn oil strengthens the hair, which is why it is also used in shampoos, conditioners and other hair products that aim to restore damaged hair [5,6].

Stability:

Unopened containers at least 2 years under exclusion of light and following conditions:

Store in a cool, dry place!

Transport:

No dangerous good in the sense of the transport regulations.

REACH - Status:

The substance is exempted from registration under annex V entry 9 of the reach regulation (EC) No 1907/2006.

Certification:

- HALAL certified by HCS (Halal Certification Services)
- KOSHER certified by KLBD (Beth Din Kashrut Division)
- Approved by ECOCERT GREENLIFE, conform to the COSMOS Standard

Conformity:

The product complies with the requirements of Regulation (EC) No. 1334/2008 on flavourings and with the requirements of Regulation (EC) No.1223/2009 on cosmetic products in the currently valid version.

Literature:

- [1] P. Manninen, E. Häivälä, S. Sarimo, H. Kallio, Distribution of microbes in supercritical CO₂ extraction of sea buckthorn (*Hippophae rhamnoides*) oils, *Zeitschrift für Lebensmitteluntersuchung und -Forschung / Springer-Verlag* (1997) 204: 202-205
- [2] K.W. Quirin, D. Gerard (1993), *Sanddornlipide - interessante Wirkstoffe für die Kosmetik, Parfümerie und Kosmetik* 10:618-625, Dr. Alfred Hüthig Verlag GmbH
- [3] Yang Baoru, *Lipophilic components of Sea Buckthorn (Hippophae rhamnoides) seeds and berries and physiological effects of seabuckthorn oils.*, Dissertation, University of Turku, 2001
- [4] Alam Zeb, *Important Therapeutic Uses of Sea Buckthorn (Hippophae): A Review*, *Journal of Biological Sciences*, Volume 4 (5): 687-693
- [5] A. Zielińska and I. Nowak, *Abundance of active ingredients in seabuckthorn oil*, *Lipids in Health and Disease* (2017) 16:95
- [6] M. Koskovic, S. Cupara, M. Kipic, A. Barjaktarevic, O. Milovanovic, K. Kojicic and M. Markovic, *Sea Buckthorn Oil—A Valuable Source for Cosmeceuticals*, *Cosmetics* 2017, 4, 40