



## General Specification

### Rosemary Antioxidant extract 14

### water dispersible, Type No. 027.003

Version No. 027.003\_12\_S, Date: 09.03.2021

**Raw material:**

Salvia rosmarinus - Leaves, dried

**Production:**

By supercritical fluid extraction with natural carbon dioxide and a small amount of ethanol as entrainer, no inorganic salts, no heavy metals, no reproducible microorganisms [1]. The CO<sub>2</sub> extract is water-dispersed by adding the emulsifier polysorbate 80 and is standardised with sunflower oil.

**D/E - ratio:**

3,0 - 4,0 kg rosemary leaves to 1 kg product.

**Organoleptic description:**

Dark brown and at room temperature viscous liquid.

**Composition:**

about 40 % Sunflower oil  
about 35 % antioxidant extracts of rosemary  
25 % emulsifier polyoxyethylene sorbitan monooleate (Polysorbate 80)

**Ingredients:**

7 - 10 % Antioxidative reference compounds: phenolic diterpenes carnosic acid and carnosol (calculated as carnosic acid) with > 6 % of carnosic acid, residual content of ethanol < 1,5 %, cuticular waxes.

**Declaration:**

In food:

sunflower oil, antioxidant extract of rosemary, emulsifier Polysorbate 80 or sunflower oil, antioxidant E 392, emulsifier E 433

In food supplements:

sunflower oil, antioxidant extract of rosemary, emulsifier Polysorbate 80 or sunflower oil, antioxidant E 392, emulsifier E 433

In cosmetics:

INCI-Name: Helianthus Annuus Seed Oil, CAS-No. 8001-21-6, EINECS-No. 232-273-9 and Rosmarinus Officinalis Leaf Extract, CAS-No. 84604-14-8, EINECS-No. 283-291-9 and Polysorbate 80, CAS-No. 9005-65-6

**Application:**

Traditional use:

Rosemary extract is used internally as a traditional herbal medicine for the treatment of dyspepsia and crampy gastrointestinal complaints. Externally, the extract is used to treat mild muscle and joint pain and mild circulatory disorders [2]. In folk medicine, rosemary is used for general digestive problems, headaches and migraines [3].

In food:

Rosemary CO<sub>2</sub> extract has antioxidant properties [4], which is why it is used as an antioxidant in



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the food industry, especially for stabilizing fat and oil emulsions.

In food supplements:

Also suitable as an antioxidant for stabilizing food supplements. According to Regulation (EC) No 1333/2008 a maximum level of 400 mg/kg (sum of carnosol and carnosic acid) applies.

In cosmetics:

Due to the carnosic acid found in the extract, rosemary extract has antioxidant properties. When applied to the skin, oxidative changes in skin surface lipids can be reduced by the extract. Therefore, the product is suitable as an ingredient in cosmetic skin care products, especially in anti-aging products [5].

**Handling:**

The concentrated FLAVEX extracts are the basic ingredients for the product formulation. They are therefore not intended for direct consumption in food, nor for direct application to the skin in cosmetics, perfumery and aromatherapy. Keep away from children!

**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:**

This product is currently not subject to registration.

**Certification:**

- KOSHER certified by KLBD (Beth Din Kashrut Division)

**Conformity:**

The product complies with the requirements of Regulation (EC) No. 1333/2008 on food additives and with the requirements of Regulation (EC) No. 1223/2009 on cosmetic products in the current valid version.

**Literature:**

- [1] P. Manninen, E. Häivälä, S. Sarimo, H. Kallio, Distribution of microbes in supercritical CO<sub>2</sub> extraction of sea buckthorn (*Hippophae rhamnoides*) oils, *Zeitschrift für Lebensmitteluntersuchung und -Forschung / Springer-Verlag* (1997) 204: 202-205
- [2] Committee on Herbal Medicinal Products (HMPC), European Medicines Agency (EMA), Community herbal monograph on *Rosmarinus officinalis* L., aetheroleum, EMA/HMPC/235453/2009
- [3] Wolfgang Blascheck u.a. (Hrsg.), HagerROM 2017, Hagers Enzyklopädie der Arzneistoffe und Drogen, Stuttgart: Wissenschaftliche Verlagsgesellschaft Stuttgart, 2017
- [4] European Food Safety Authority, Use of rosemary extracts as a food additive, *The EFSA Journal* (2008) 721, 1-29
- [5] Simona Birtic, Pierre Dussort, François-Xavier Pierre, Antoine C. Bily, Marc Roller, Carnosic acid, *Phytochemistry* 115 (2015) 9-19

**Disclaimer:**

This specification has been prepared to the best of our knowledge for customer information, but under exemption of liability, particularly regarding infringement of or prejudice to third party rights by the use of the product. Statements on application summarise literature evidence and have informative character. Statements have not been evaluated by competent authorities and do not refer to finished products. The marketer of a finished product containing an extract as an ingredient is responsible for ensuring that the product claims are lawful and that the applicable laws and regulations of the country in which the product is sold are complied with.