

General Specification

Rosemary CO₂-se-plus extract (organic)

Cineol Type, DE-ÖKO-013, Type No. 027.036

Raw material:

Salvia rosmarinus - Leaves,
dried, from organic farming

**Production:**

By supercritical fluid extraction with natural carbon dioxide and a small amount of ethanol (organic) as entrainer and with fractionated separation, no inorganic salts, no heavy metals, no reproducible microorganisms [1].

D/E - ratio:

38 - 53 kg rosemary leaves to 1 kg product.

Organoleptic description:

Clear yellow to light brown oil with eucalyptus like, woody - balsamic smell.

Composition:

100 % Rosemary CO₂-se-plus extract (organic)

Ingredients:

70 - 90 % essential oil with at least 35 % 1.8 cineol, 10 - 25 % camphor, NMT 8 % verbenone, alpha pinene, beta caryophyllene, limonene, p-cymene, borneol, bornylacetate and other trace components. 0,5 - 3 % antioxidative phenolic diterpenes (calculated as carnosic acid) with carnosic acid as main component. Residual content of ethanol less than 1 %.

Limited substances (food):

According to Annex II Reg. (EC) No. 1334/2008 (flavour regulation): methyl eugenol (for value in the extract, see certificate of analysis)

Limited substances (cosmetic):

According to Annex III Reg. (EC) No. 1223/2009 (cosmetic regulation): methyl eugenol (for value in the extract, see certificate of analysis)

Declaration:

In food:
flavouring preparation or herb extract or rosemary extract

In food supplements:
rosemary extract

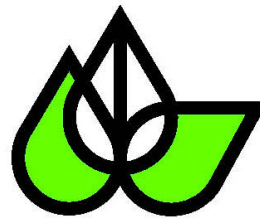
In cosmetics:
INCI-Name: Rosmarinus Officinalis Leaf Extract, CAS-Nr. 84604-14-8, EINECS-Nr. 283-291-9

Application:

Traditional use:

The essential oil of rosemary is used internally as a traditional herbal medicine for the treatment of dyspepsia and spasmodic gastrointestinal disorders. 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:
Due to its flavour, essential rosemary oil can be used as a herb extract in many foods.

**In food supplements:**

Rosemary essential oil is also suitable in diluted form for use in food supplements.

In cosmetics:

The essential oil of rosemary, especially its main components 1,8-cineol, camphor, alpha-pinene, verbenone and beta-caryophyllene have antimicrobial properties against oral pathogens responsible for the development of caries [4]. Therefore, the use of rosemary extract in oral care products such as toothpaste or mouthwashes is conceivable. Moreover, the extract has a characteristic spicy aroma and is suitable as a fragrance in various cosmetic products and perfumes.

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 5 years under exclusion of light and following conditions:
 Store in a cool, dry place!

Transport:

UN 1169 EXTRACTS, AROMATIC, LIQUID; 3, III

REACH - Status:

This product is currently not subject to registration.

Certification:

- ORGANIC certified by QC&I (Quality, Certification and Inspection)
- KOSHER certified by KLBD (Beth Din Kashrut Division)
- COSMOS certified by IONC (International Organic and Natural Cosmetics Corporation), 100 % certified ingredients (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] 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] Bernardes WA; Lucarini R; Tozatti MG; Flauzino, LG; Souza, MG; Turatti, IC; Andrade e Silva, ML; Martins, CH; da Silva Filho, AA; Cunha, WR., Antibacterial activity of the essential oil from *Rosmarinus officinalis* and its major components against oral pathogens, Z. Naturforschung C, 65, 588-593, 2010

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 a FLAVEX 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.