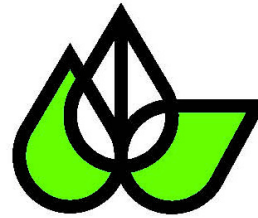


## General Specification

### Chili CO<sub>2</sub>-to extract (organic), high colour 3,1 % Capsaicinoids, DE-ÖKO-013, Type No. 049.006



<b>Raw material:</b>	Capsicum frutescens - Fruit with seeds, dried, from organic farming
<b>Production:</b>	By supercritical fluid extraction with natural carbon dioxide, no solvent residues, no inorganic salts, no heavy metals, no reproducible microorganisms [1]. The extract is standardized by addition of rapeseed oil (organic) if necessary.
<b>D/E - ratio:</b>	4,0 - 5,9 kg chili fruits to 1 kg product.
<b>Organoleptic description:</b>	Dark red, at room temperature clear liquid oil with pungent smell and taste.
<b>Composition:</b>	> 70 % Chili CO <sub>2</sub> -to extract (organic) < 30 % Rapeseed oil (organic), if necessary
<b>Ingredients:</b>	3,0 - 3,2 % total capsaicinoids (nordihydrocapsaicin, capsaicin, dihydrocapsaicin) and 0,6 - 1,0 % carotenoids (beta-carotene, capsanthin, capsorubin).
<b>Declaration:</b>	In food: flavouring preparation or spice extract or chili extract  In food supplements: chili extract, rapeseed oil (if applicable)  In cosmetics: INCI-Name: Capsicum Frutescens Fruit Extract, CAS-No. 85940-30-3, EINECS-No. 288-920-0 and Brassica Campestris Seed Oil, CAS-No. 8002-13-9, EINECS-No. 232-299-0
<b>Application:</b>	Traditional use: In herbal medicines for external use, such as salves or warming patches, chili is used to relieve muscle pain, such as back pain [2]. In folk medicine, chili preparations are used for frostbite or arthritis. In addition, folk medicine is known to use chilli internally for hoarseness and sore throat [3].  In food: The chili extract gives food and beverages a hot pungent flavour.  In food supplements: Today, a significant number of clinical studies provide substantial evidence that daily consumption of capsaicinoids contribute to weight management through reduction of energy intake. Chili CO <sub>2</sub> -extracts with capsaicinoids as bioactive ingredients have the potential, if taken regularly, to



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be used for natural weight-loss [4].

In cosmetics:

In cosmetics, chilli extracts are used as skin conditioners and fragrances [5].

#### Handling:

Warm up 40°C (104°F) and mix before use !

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:

No dangerous good in the sense of the transport regulations.

#### REACH - Status:

This product is currently not subject to registration.

#### Certification:

- ORGANIC certified by Quality, Certification and Inspection (QC&I)
- HALAL certified by Halal Certification Services (HCS)
- KOSHER certified by Beth Din Kashrut Division (KLBD)

#### 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 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), European Union herbal monograph on *Capsicum annuum* L. var. *minimum* (Miller) Heiser and small fruited varieties of *Capsicum frutescens* L., fructus, (2015) EMA/HMPC/674139/2013
- [3] F.C. Czygan, D. Frohne, Chr. Hölzel, A. Nagell, P. Pachaöy, H.J. Pfänder, M. Wichtl, g. Willhuhn, W. Buff, Teedrogen und Phytopharmaka, 3. Auflage., Stuttgart: Wissenschaftliche Verlagsgesellschaft GmbH 1997
- [4] Whiting S, Derbyshire EJ, Tiwari B, Could capsaicinoids help to support weight management? A systematic review and meta-analysis of energy intake data, Appetite, Feb;73:183-8, 2014.
- [5] Bundesinstitut für Risikobewertung (BfR), Zu scharf ist nicht gesund - Lebensmittel mit sehr hohen Capsaicingehalten können der Gesundheit schaden, Stellungnahme Nr. 053/2011 des BfR vom 18. Oktober 2011

#### 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.