Raw material: *Curcuma longa* - Rhizome, dried, from organic farming

Production: By supercritical fluid extraction with natural carbon dioxide, no solvent residues, no inorganic salts, no heavy metals, no reproducible microorganisms [1].

Description: Contains all CO2-soluble lipophilic components. Yellow - orange clear to slightly turbid liquid oil with typical smell.

D/E - ratio: 10 - 20 kg raw material yield 1 kg product.

Declaration: INCI-Name (CTFA): Curcuma Longa (Turmeric) Root Extract, CAS-No. 84775-52-0, EINECS-No. 283-882-1

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)
- COSMOS certified by International Organic and Natural Cosmetics Corporation (IONC), 100 % certified ingredients (COSMOS-Standard)

Transport: No dangerous good in the sense of the transport regulations.

Ingredients: 70 - 90 % essential oil containing mainly alpha- and beta-turmerone and ar-turmerone; in addition alpha-phellandrene, alpha-zingiberene, sesquiphellandrene. The extract contains only traces of curcumin.

Application: Traditional Use:
Curcuma is an important seasoning and in traditional Chinese medicine and Ayurvedic medicine, turmeric has been used to aid digestion and in treatment of liver and bile problems, it helps relieve arthritis pain, and regulate menstruation. Today, traditional or folk uses of turmeric include heartburn, dyspepsia, stomach ulcers, gallstones, inflammation, and cancer.

In Cosmetics:
In an animal study curcuma longa (turmeric) essential oil shows in dermal application good efficacy in inhibition of Trichophyton-induced dermatophytosis in guinea pigs [2].

In Food Supplements:
Although the product does not contain the polar curcuminoids, which have the yellow colour,
nevertheless the essential oil of curcuma contributes to the therapeutic healing effect since it increases the bioavailability of the curcuminoinds [3, 4]. Some promising effects of curcuminoinds in clinical trials are treatment of various pro-inflammatory diseases including cancer, cardiovascular disease, arthritis, irritable bowel disease, tropical pancreatitis, peptic ulcer, gastric ulcer, gastric inflammation, atherosclerosis, diabetes, diabetic nephropathy, acquired immunodeficiency syndrome (AIDS). Curcuminoinds have also shown protection against hepatic conditions and alcohol intoxication [5]. One or more animal studies or clinical trials of curcuma longa (turmeric) essential oil show efficacy in: 

-amelioration of ischemia-induced neurological functional deficits [6].

-neuroprotective activity against cerebral ischemia for treatment of cerebral stroke and other disorders associated with oxidative stress [7].

-inhibition of the development of increased blood glucose and abdominal fat mass in obese, diabetic rats when simultaneously curcuminoinds are administered [8].

-treatment of disorders of the respiratory tract, e.g. removing sputum, relieving cough, and preventing asthma [9].

Mechanism of Activity
The essential oil of Curcuma longa has a high concentration of the bioactive turmerones. The turmerones have shown in vitro the following activities: inhibition of NF-κB activation in TPA-induced breast cancer cells [10], inhibition of key enzymes linked to type 2 diabetes [11], anti-inflammatory effects in microglial cells [12], apoptosis of human hepatocellular carcinoma [13], anti-inflammatory effects in amyloid β-stimulated microglia [14], anti-proliferative and immunomodulatory activities [15], activation of apoptotic protein [16].

(Statements summarise literature evidence and have informative character. They might be derived from in vitro or animal tests and thus not be substantiated for humans. Statements have not been evaluated by competent authorities and do not refer to finished products. The marketer of any finished product containing any FLAVEX extract as ingredient is responsible for assuring that the claims made for his product are lawful and comply with all applicable laws and regulations of the country in which the product is to be sold.)

Naturalness: The product is manufactured from the named raw material. It contains no additives and no other technical adjuncts, it is not blended and not formulated. The product is 100 % natural and it corresponds to the EC Flavouring Regulation No. 1334/2008 for flavours preparations.

Stability: Unopened container under cool and dry storage conditions and exclusion of light at least 5 years.

References:
Disclaimer: These data are given for customer’s information only to the best of our knowledge but under exemption of liability especially regarding infringement of or prejudice to third party rights through the use of this product. Users are responsible for ensuring the compliance with the applicable legislation.

The concentrated FLAVEX extracts are raw materials for product formulation. Hence they are not intended for direct consumption in food and for undiluted topical application in cosmetics, perfumery and aromatherapy. Keep away from children.