

Astaxanthin 5% L

Description

Astaxanthin is a xanthophyll and non-provitamin A carotenoid, with potential antioxidant, anti-inflammatory and antineoplastic activities as well as coloring properties. Naturally it is produced by green algae and is responsible for the red coloring of crustacean, that eat those algae. In industrial productions the algae *Haematococcus pluvialis* is used for astaxanthin isolation. Astaxanthin is structural related to carotenoids like β -carotin, zeaxanthin and lutein. Astaxanthin shows vitamin-like activity and has a 10 times higher activity than β -carotin. The natural color of salmon meat is related to the amount of astaxanthin present in the crustacean they consumed.

Astaxanthin 5% L is a 100 % natural purified concentrate of astaxanthin extracted from algae (*Haematococcus pluvialis*). Due to its unique molecular structure astaxanthin can protect the skin from the radiation of UV ray by acting as an antioxidant. It reduces oxidative stress by decreasing the production of reactive oxygen species (ROS) and free radicals, thereby preventing protein and lipid oxidation, inflammation, and DNA damage. It is more efficient than vitamin E. Furthermore, astaxanthin can also rejuvenate damaged skin to its optimum condition. Astaxanthin suppresses melanin production and helps control a stable melanin deposition, what makes it a great active ingredient for skin brightening formulations in cosmetics. Astaxanthin can increase skin metabolism and retain moisture. By increasing the moisture level, skin elasticity and suppleness are enhanced, and hence fine lines will be reduced. Unlike several carotenes and other carotenoids, astaxanthin is not converted to vitamin A (retinol) in the human body. It shows self-limited absorption orally and such low toxicity.

Efficacy

- acts as sunblocker
- acts as an antioxidant and rejuvenates damaged skin
- supports an even skin tone by suppressing melanin synthesis
- reduces freckles
- smoothes fine lines and reduces wrinkles
- increases skin metabolism and moisturization level
- represents a natural coloring agent

Appearance

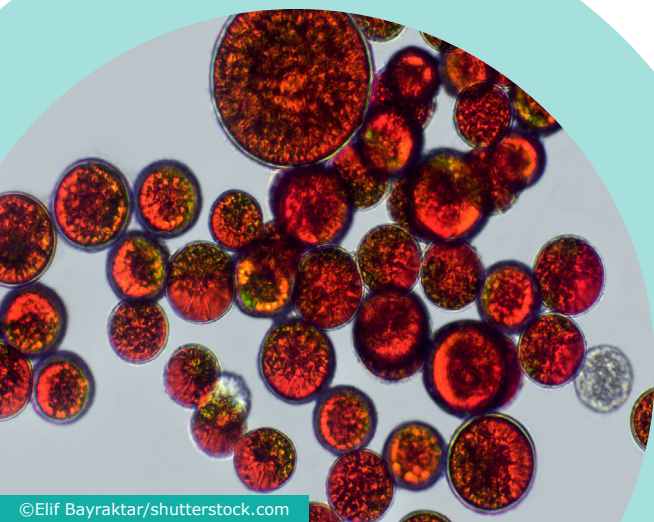
red viscous oil

INCI

Astaxanthin or *Haematococcus Pluvialis* Extract

Registration

CAS-No.....-/-
EC-No.....-/-



Nature needs no cosmetics,
but cosmetics need nature

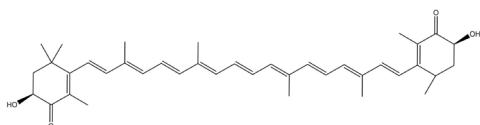
Astaxanthin 5% L

Preservatives / Stabilizers

none

Characteristics

Astaxanthin.....>= 5.0 %



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molecular formula.....C₄₀H₅₂O₄

molecular weight.....596.85 +-1 g/mol

synonym....3,3'-dihydroxy-β,β-carotin-4,4'-dion

Application

in high quality cosmetic products
creams and lotions
emulsions

Application concentration

skin care formulations.....0.01 - 0.1 %

Incorporation

Astaxanthin 5% L should be added at the last step of formulation below 40°C.

Toxicology

non hazardous in normal use concentration

Storage & Shelf life

Astaxanthin 5% L should be stored in sealed containers at a cool, dry and light protected place at 2 - 8°C. Nitrogenization packed. Brief exposure up to 35°C for max. 2 weeks.

In closed original containers the shelf life is 24 months.