

smartCrystal[®] Rutin MB

Description

smartCrystal[®] are crystalline cosmetic actives with a size in the submicron range, typically 0.2 to 0.5 µm mean diameter. These "submicron crystals" are a novel, patent-protected formulation to enhance the performance and hence bioactivity of active ingredients used in cosmetical, dermatological and pharmaceutical applications. With this innovative technology the solubility of actives can be optimized, and their penetration can be improved, leading to an enhanced bioavailability in the skin. The smartCrystal[®] can be easily incorporated into regular cream or gel formulations.

smartCrystal[®] Rutin MB is an innovative cosmetic ingredient with enhanced performance and hence bioactivity of the active component rutin. Rutin is a glucosid composed of quercetin and rutinose (a disaccharide of glucose and rhamnose). Rutin is one of the natural flavonoides, which are applied in the traditional medicine since centuries. It is widespread in many plants and often together with vitamin C. Our rutin is produced from the flowers of japonicum syn. Sophora japonica. Rutin can be used in skin care for stabilization of basic and special raw materials which are sensitive to oxidation, for stabilization of cosmetic formulations against the decomposition by oxygen and microbes for anti-aging products as scavenger in hair care products to increase the supply of blood in the scalp and in order to prevent the formation of dandruff. Flavonoids are demonstrating a very good antioxidative effect. In 1999 it was concluded that some flavonoids like rutin are excellent antioxidants by their mode of action and are able to inhibit the activity of lipoxygenase in liposomes. Rutin has an antioxidative effect beginning in concentrations of 0.001 %. Rutin inhibits platelet aggregation, as well as decreasing capillary permeability, making the blood thinner and improving circulation

Efficacy

- acts as an antioxidant
- stabilizes cosmetic formulations
- prevents oxidation decomposition of collagen
- protects the skin from environmental damages
- decreases capillary permeability
- increases microcirculation
- anti-inflammatory
- protects from UV radiation

Appearance

yellow aqueous dispersion

INCI

Aqua, Glycerin, Rutin, Decyl Glucoside

Registration

CAS-No.:

Aqua.....	7732-18-5
Rutin.....	153-18-4
Glycerin.....	56-81-5
Decyl Glucoside.....	54549-25-6



Nature needs no cosmetics,
but cosmetics need nature

smartCrystal[®] Rutin MB

EC-No.:

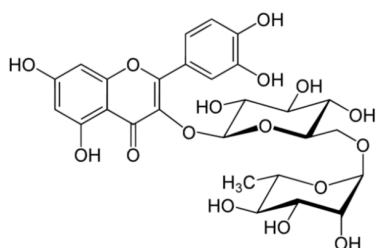
Aqua.....	231-791-2
Rutin.....	205-814-1
Glycerin.....	200-289-5
Decyl Glucoside.....	259-218-1

Preservatives / Stabilizers

none

Characteristics

rutin content.....	5 %
mean particle size.....	< 1 µm
polydispersity index (PDI).....	< 0.5
pH-value.....	7.5 - 9.5



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molecular weight rutin.....	>= 610.52 g/mol
molecular formula rutin.....	C ₂₇ H ₃₀ O ₁₆
synonyms:	
	rutosid, sophin, quercetin-3-O-rutinosid

Application

daily cosmetic products
creams and lotions
face masks
gels and ampoules
body care

Application concentration

0.4 - 5 %

Incorporation

smartCrystal[®] Rutin MB is unsolvable. Instead, it is dispersible. Shake it before use and incorporate it into the water phase. Avoid extended exposure to high heat.

Toxicology

non hazardous in normal use concentration

Storage & Shelf life

smartCrystal[®] Rutin MB should be stored in original sealed containers in a dry and well ventilated, cool place at temperatures between 2 – 8 °C. Brief exposure up to 40 °C possible.

Shake before use!

In closed original containers the shelf life is 12 months.