

Esculin natural

Description

Esculin is a glycosylated coumarin obtained from the bark of flowering ash (*Fraxinus ornus*) trees. Since many years esculin is known for the effective treatment of venous peripheral diseases. Newer studies are showing that esculin also has interesting efficacy on skin microcirculation and strengthening of connective tissue, thus making it a valuable active ingredient for anti-aging, anti-cellulite and anti-hair-loss preparations.

Esculin natural is effective against couperosis, hair loss and cellulite. Different activities are responsible for these effects. Esculin natural is known to protect capillaries by improving capillary permeability and fragility. It is increasing capillary concentration and improves the morphological condition of small blood vessels. In addition, Esculin natural is inhibiting collagenase and hyaluronidase and by this it is preserving the integrity of connective tissue. Esculin natural is a good antioxidant, is anti-irritant, soothes UV induced erythema and absorbs UV-B light. This makes it an ideal active ingredient for protection of skin by preventing autoxidation of lipids and shielding UV-B light. Esculin natural is especially suitable for sensitive skin and for the protection of skin against environmental impact. It soothes reddened skin and would be ideal for after-sun and sensitive skin preparations. Esculin natural is also an effective active against cellulite, couperosis and hair-loss. So it is interesting for the use in anti-ageing preparations to fight cellulite, hair preparations and other dermal formulations.

Efficacy

- stimulates microcirculation
- helps to prevent hair loss
- helps to fight cellulite
- is effective against couperosis
- improves capillary permeability
- stabilizes blood vessel membrane
- preserves the integrity of connective tissue
- acts as an antioxidant
- reduces irritations
- reduces erythema
- protects skin cells from environmental damages

Appearance

white to light cream, crystalline powder

INCI

Esculin

Registration

CAS-No.....531-75-9

EC-No.....208-517-5

Preservatives / Stabilizers

none



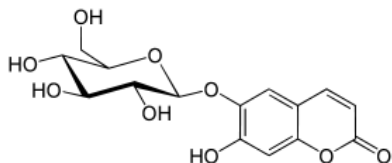
Nature needs no cosmetics,
but cosmetics need nature

Esculin natural

Characteristics

esculin content.....98.0 - 102.5 %
(calculated for dried substance)

specific optical rotation.....-84° to -87°
water.....6.5 - 8.5 %



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molecular formula..... $C_{15}H_{16}O_9 \cdot xH_2O$
molecular weight.....340.28 g/mol⁻¹
synonym:
6-O-(-D-glucosyl)aesculetin, äsculin, schillerstoff

Application

daily cosmetic products
creams and lotions
gels and ampoules
body care
cellulite products
couperosis products
products against hair loss

Application concentration

skin care formulations.....0.5 - 3 %

Incorporation

Esculin natural is soluble in hot water or at 40 - 50°C in ethanol, glycerin, propylene glycol, butylene glycol or ethoxydiglycol.

Toxicology

non hazardous in normal use concentration

Storage & Shelf life

Esculin natural should be stored in closed containers in a dry, cool and light protected place at 10 - 25°C.

In closed original containers the shelf life is 36 months.