

Ascorbyl Glucoside

Description

Ascorbyl Glucoside is a stabilized Ascorbic Acid derivative with superior formulation stability; it is easily soluble in water.

It resists discoloration and degradation, while retaining all the biologic activity of L-ascorbic acid.

Ascorbyl Glucoside has the same lightening, sun protective and anti-aging properties as L-ascorbic acid. It penetrates into the skin where it is metabolized to free vitamin C.

Appearance

white to cream white powder

INCI

Ascorbyl Glucoside

Registration

CAS-No.....129499-78-1

EINECS-No.....425-980-0

Raw material approved by ECOCERT GREENLIFE, conform to the ECOCERT Natural and Organic Cosmetics Standard.

Preservatives/Stabilizers

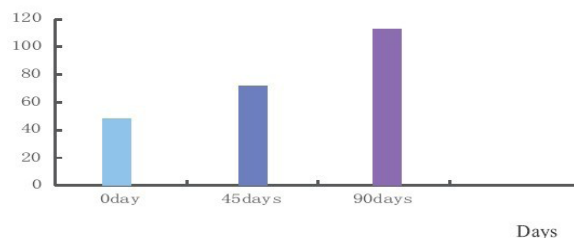
none

Efficacy

- excellent antioxidant
- boosts collagen production
- lightening & brightening
- reduces fine lines and wrinkles
- repairs and protects from sun damage

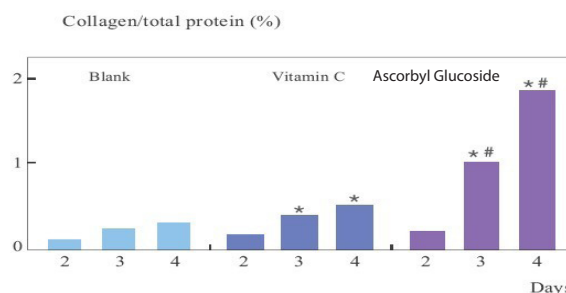


Skin Lightening



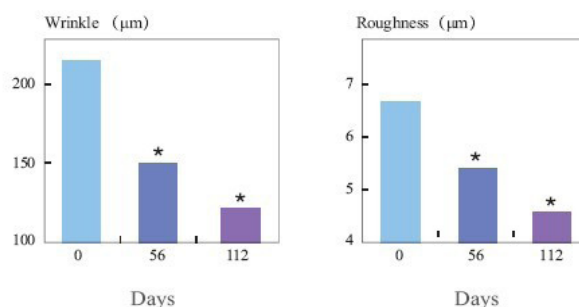
Sixteen female volunteers (37 to 55 years old) applied a face cream containing 2 % of Ascorbyl Glucoside, twice a day.

Promotion of Collagen Synthese



(*Significantly different from control at <0.05 and #significantly different from vitamin C at <0.05)

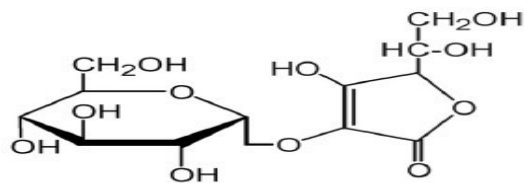
Wrinkle Reduction / Skin Roughness



Sixteen female volunteers (37 to 55 years old) applied a face cream containing 2 % of Ascorbyl Glucoside, twice a day for a total of 112 days to the outer corners of their eyes and cheek area.

Ascorbyl Glucoside

Chemical structure



Glucose

Vitamin C

Molecular formula: $C_{12}H_{18}O_{11}$
Molecular Weight: 338.26472

Characteristics

pH-value.....2.0 - 2.5
melting point.....158°C - 163°C
optical rotation.....+186.0° - +188.0°
assay.....>=98 %

Application

Ascorbyl Glucoside can be incorporated in different kinds of cosmetic formulations.

Application concentration

skin care creams.....0.1 - 2.0 %
anti wrinkle treatment.....1.0 - 2.0 %
skin lightening products.....1.0 - 2.0 %

Incorporation

Ascorbyl Glucoside is highly stable at pH 5 - 7 even at high temperatures (up to 100 °C).

Please avoid leaving it under prolonged conditions of strong acidity or alkalinity (pH 2 - 4 and 9 - 12); do not work with Sodium Hydroxide.

For better stability and to avoid pH drift the use of 1 % citrate buffer is recommended.

To avoid discoloration protect the formulation from light, heat and high temperatures and adjust pH to

6.5 to 6.8. The addition of metal chelating agent and/or an antioxidant improves stability.

Toxicology

Skin irritation: not irritant
Eye irritation: not irritant
Skin sensitization: not sensitizing
Acute Toxicity: > 2,000 mg/kg
(by oral administration)
> 2,000 mg/kg
(by dermal administration)
Subacute Toxicity: NOAEL > 1,000 mg/kg
(28-day oral administration to rat)

Storage & Shelf life

Shelf life is 24 months. Store in sealed containers in a cool and dry place. Protect from light and moisture.

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