

Ascorbyl Glucoside

Description

Vitamin C (ascorbic acid) is a normal constituent of human skin, and is concentrated in the dermis and epidermis. It is one of the most widely used antioxidants for protecting the skin. Vitamin C can inhibit the activity of tyrosinase and therefore decreases the melanin production. In addition, vitamin C is important to help protect the skin against UV-induced free radical damage that is related to skin aging. Unfortunately, pure vitamin C is not stable in cosmetic formulations and easily oxidized when exposed to air or light. To avoid this oxidation process and to provide the maximum benefit of vitamin C, it is recommended to use a stable form of vitamin C in personal care preparations. One of these stable and COSMOS approved vitamin C derivatives is Ascorbyl Glucoside.

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.

Efficacy

- decreases the generation of melanin by inhibition of tyrosinase activity
- acts as an antioxidant
- decreases wrinkle progression
- reduces fine lines
- improves skin lightening
- improves radiance and an even skin tone
- increases collagen production
- reduces and repairs sun damages on the skin

Appearance

white to cream white powder

INCI

Ascorbyl Glucoside

Registration

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

EC-No..... 425-980-0

Raw material approved by ECOCERT GREENLIFE,
conform to the COSMOS Standard.

Preservatives / Stabilizers

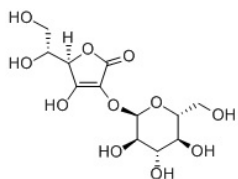
none



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Characteristics

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



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molecular formula.....C₁₂H₁₈O₁₁
molecular weight.....338.26472 g/mol
synonym:
vitamin C glucoside, ascorbate glucoside, gluco-
sinolate ascorbate

Application

high quality cosmetic products
creams and lotions
face masks
gel and ampoules

Application concentration

skin care formulations.....0.1 - 10 %

Incorporation

Ascorbyl Glucoside is water soluble and highly stable at pH 5 - 7 even at high temperatures (up to 55°C).

Please avoid leaving it under prolonged conditions of strong acidity or alkalinity (pH 2 - 4 and 9 - 12).

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

non hazardous in normal use concentration

Storage & Shelf life

Ascorbyl Glucoside should be stored in sealed containers at a cool, dry and light protected place at 10 - 25°C.

In closed original containers the shelf life is 24 months.