Selco

Sodium Ascorbyl Phosphate

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.

Sodium Ascorbyl Phosphate is an esterified derivative of ascorbic acid, which is improving stability and is stable in cosmetic formulations. Sodium Ascorbyl Phosphate penetrates into skin and there it is metabolized to ascorbic acid. Due to this process its efficacy is better than the one of pure ascorbic acid. It resists discoloration and degradation, while retaining all biological activity of L-ascorbic acid.

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 almost white powder

INCI

Sodium Ascorbyl Phosphate

Registration

CAS-No.....66170-10-3
EC-No.....425-180-1

Preservatives / Stabilizers

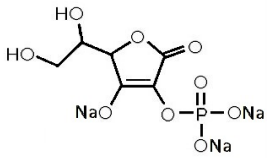
none

Nature needs no cosmetics,
but cosmetics need nature

Sodium Ascorbyl Phosphate

Characteristics

assay.....>= 98.0 %
pH (3 % water solution).....8.0 - 10.0
loss on drying.....<= 10.0 %



molecular formula.....$C_6H_6O_9Na_3P$
molecular weight.....322.05 g/mol

Application

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

Application concentration

skin care formulations.....0.2 - 5 %

Incorporation

Sodium Ascorbyl Phosphate can easily be incorporated in cosmetic formulations below 40°C. It is soluble in water up to 64 %, in glycerol up to 13.2 % and 1.6 % in propylene glycol.
In production of cosmetic care products, it is recommended to add Sodium Ascorbyl Phosphate to formulations at temperatures below 40°C. It can be exposed to higher temperatures up to 80°C, but only for a short time.
The product is most stable above pH 6.5. For better stability and to avoid pH drift to acidic pH-values the use of 1 % citrate buffer is recommended, as well as the use of a chelating agent and an antioxidant.
Long acidic conditions at pH 2 - 4, heavy metals and heat should be avoided. To avoid discoloration the formulation should be protected from light, heat and high temperatures.

Toxicology

non hazardous in normal use concentration

Storage & Shelf life

Sodium Ascorbyl Phosphate 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 36 months.

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