

Concentrate of stabilized natural vitamin C

Vitamin C is a very efficient anti-oxidant. It stops the radical chain reaction by capturing free radicals. At the level of the skin, it is not only necessary to fight against the production of free radicals (solar irradiation, aging, etc...) but also combat for the modulation of enzymatic activities. In fact, it intervenes in the synthesis of pro-collagen (by controlling the replication of genes $\text{pro}\alpha 1$, $\text{pro}\alpha 2$ and $\text{pro}\alpha 3$) but also in its transformation into functional collagen (cofactor of the enzymes prolyl and lysyl-hydroxylase). Vitamin C can also act in the first stages in the pigmentation process. The utilization of a natural vitamin C concentrate can then be recommended for the development of anti aging products, protective and regenerating creams, sun protectants, after sun products, lightening and liquid foundations.

BOTANICAL DESCRIPTION

Malpighia puniceifolia, the acerola is a cherry originating from West Indies and it is widespread in warm parts of both American continents. Its small (1 to 2 cm of diameter) and bright red fruits grow on little trees. It has, by far, the highest content of vitamin C among all fruits. Fruits have been used traditionally for dysentery treatment. It is used in Brazil for fruit juice production.



COMPOSITION

For stabilizing vitamin C immediately after harvesting, the acerola extract is spray dried with maltodextrin and encapsulated in a liposome.

ACEROMINE is titrated in:

► **Vitamin C: 1.4% - 2%**

ACTIVITIES

ACEROMINE activity is due to its high content in vitamin C.

ACEROMINE:

- Scavenges free radicals
- Protects skin from photo-aging
- Stimulates collagen synthesis by its role of hydroxylase cofactor and increases hydroxyproline synthesis
- Prevents irritation
- Reduces skin pigmentation by inhibiting melanogenesis

• **INCI NAME:** Water, Malpighia Punicifolia (Acerola) Fruit Extract, Alcohol, Glycerin, Lecithin, Guar, Hydroxypropyltrimonium Chloride, Phenoxyethanol, Benzophenone-4

• **PRESERVATIVE:** Phenoxyethanol

• **CAS N°:** 7732-18-5, 223747-63-5, 64-17-5, 56-81-5, 8002-43-5, 65497-29-2, 122-99-6, 58-95-7, 4065-45-6

• **EINECS N°:** 231-791-2, 310-127-6, 200-578-6, 200-289-5, 232-307-2, -, 204-589-7, 231-710-0, 223-772-2

COSMETIC USES

- ✓ Anti-aging skin care
- ✓ Revitalizing skin care
- ✓ Sun and after sun products
- ✓ Skin lightening products
- ✓ Liquid make-up

FORMULATIONS

• USE LEVEL

2 to 10 %

• CAUTION FOR USE

- Gently shake before using.
- Add at the end of cold preparations and at 35-40°C for emulsions, while cooling.
- Formulate in a pH range of 3-6.5.

Warning: The company cannot assume any liability or risk involved in the use of its products since the conditions of use are beyond our control. We assume no responsibility concerning the formulations which are brought to the market and which contain one or several of our products. It is incumbent to the formulators to take all necessary precautions and, in particular, to comply with all required legal and regulatory steps and formalities.

TECHNICAL DATA

CHARACTERISTICS

Organoleptic: Appearance: Viscous
 Colour: Beige to orange
 Odour: Characteristic

Solubility: Water: Soluble
 Alcohol: Partially soluble

pH: 2.5 - 4.0

TOLERANCE TESTS

Eye irritation: Slightly irritant
 Skin irritation: No irritant
 Mutagenicity: No mutagen
 Sensitization: Hypoallergenic

STORAGE

Store protected from light in their original packaging and in cold room (less than 8°C).

Any container that has been opened should be rapidly used or repacked in sterile packaging.

Biopôle Clermont-Limagne - 63360 St Beauzire - France
 Tel: +33 4 73 33 99 00
 E-mail: greentech@greentech.fr
 For Germany: info@greentechgmbh.de
 For USA: mmueller@greentechusainc.com
 Web site: www.greentech.fr

Editions December 2012