

Bromelain (100)

Description

The word "Nana" means delicious fruit: this is what the Amazonian Indians call the pineapple. The home of the pineapple is the Mato Grosso region in Amazon delta. As early as 1558, the French chronicler André Thevet wrote that pineapple was "the fruit from which the Native Americans derive the greatest medicinal benefit". A very special ingredient of the pineapple, discovered by biochemists first in 1957, is bromelain. The active ingredient bromelain is a mixture of protein-splitting enzymes from the stem of the pineapple plant. To extract the active ingredient, the fresh strains are peeled, washed and crushed. From this a fresh juice is pressed and afterwards the different bromelain fractions are isolated by filtration. The bromelain fractions are then dried and ground, so that the active ingredient Bromelain (100) can be further processed. Bromelain (100) has a decongestant, anti-inflammatory and circulation-promoting effect. Of course, also the skin is benefiting from these positive properties, resulting in a healthy, smooth skin with a fresh and rosy complexion.

Bromelain (100) is a hydrolytic protease extracted from the stem of pineapple, also known as pineapple enzyme. The main principle of action is to hydrolyse peptides into low molecular weight peptides, as well as to hydrolyse amide groups and esters.

Efficacy

- shows a high catalytic efficiency
- works selectively on aged skin cells as peel-off substrate
- reduces freckles and enhances an even skin tone
- reduces inflammations
- reduces UV-induced skin darkening
- stimulates cell growth
- shows antifungal activity
- enhances skin softness and tenderness
- can also be used as food additive

Appearance

off-white or light yellow powder

INCI

Bromelain

Registration

CAS-No.....37189-34-7

EC-No.....253-387-5

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

Preservatives / Stabilizers

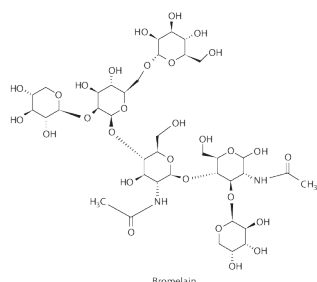
preservatives.....none
 Maltodextrin.....85 %



Bromelain (100)

Characteristics

activity.....100000 U/g
loss on drying.....<= 10 %
residue of ignition.....<= 6 %



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molecular formula.....C₃₉H₆₆N₂O₉₉-
molecular weight.....1026.9 g/mol

Application

high quality cosmetic products
daily care products
creams and lotions
face masks
gels and ampoules

Application concentration

skin care formulations.....0.1 - 1.0 %

Incorporation

Bromelain (100) should be blended into the water phase below 40°C. The optimum pH range is 6.0 - 6.8. It is mostly soluble in water. Almost insoluble in methanol, diethyl ether and chloroform.

Bromelain (100) is a bio-active substance and can easily be inhibited or destroyed by heavy metals (e.g. Fe³⁺, Cu²⁺, Hg²⁺, Pb²⁺, etc.) and oxidants.

Do not use in formulations with protein products or formaldehyde preservatives.

Toxicology

non hazardous in normal use concentration
pure raw material can cause

- skin irritation
- serious eye irritation
- allergy or asthma symptoms or breathing difficulties if inhaled
- respiratory irritation

Storage & Shelf life

Bromelain (100) should be stored in sealed containers at a dry, cool, light protected place at 2 - 8°C.

In closed original containers the shelf life is 12 months.