

## ENN' ACTIVE PAPAYA

Ref.: EXT018

### ► DEFINITION

ENN' ACTIVE PAPAYA is a water-soluble concentrated powder extract of Papaya (*Carica papaya*) fruits which contains a minimum of 5 % Papain enzyme.

### ► PRESENTATION OF THE PLANT

The Papaya tree belongs to a small family reduced to four genera. It is a tree reaching 3 to 10 m in height, with the habit of a palm: the fleshy stem, marked by scars where leaves have fallen off, is surmounted by a terminal panache of large leaves on long petioles and with 5-7 lobes. A dioecious species, the Papaya tree bears ovoid berries of variable size: they can reach 20-30 cm in diameter and weight 5 kg. When ripe, papaya fruits are yellowish-green, their flesh juicy and orange-yellow, and their central cavity is filled with black seeds surrounded by mucilage. Within the fruit pericarp and the leaf mesophyll runs a network of anostomosed laticiferous ducts. The species is native to Central America, and is cultivated in virtually all of the intertropical regions (Brazil, Florida, Indonesia, The Philippines, Africa). The latex, collected after incision of the unripe fruit, is used by the pharmaceutical industry to produce pure papain enzyme.



### ► COSMETIC PROPERTIES

ENN' ACTIVE PAPAYA is rich in Papain, a proteolytic enzyme with cleansing and keratolytic properties. It also contains sugars, amino-acids and minerals with moisturizing and softening properties.

ENN' ACTIVE PAPAYA can be used as an enzymatic peeling agent to increase the exfoliation of the skin surface cells, accelerate healing of the skin blemishes and finally contribute to a healthier complexion, especially in case of oily skin or acne-prone skin.

ENN' ACTIVE PAPAYA can also be used as a natural cleansing agent in oral care products, or as a desinfiltrating agent in anti-cellulite preparations.

### ► SPECIFICATIONS

Appearance	Thin hygroscopic powder
Colour	Orange yellow
Odour	Characteristic
Taste	Characteristic
Extraction solvent	Water
Carrier	Maltodextrin
Presence of amino-acids	Positive
TLC	Conforms to TLC of reference

Loss on drying	≤ 8 %
pH (1% in water)	3.5 - 6.0
Density	≥ 0.500
Solubility	Water-soluble
Papain	≥ 5 %
Papain activity	≥ 300 USP units /mg
Total germs	< 1000 cfu/g
Yeasts and moulds	< 100 cfu/g
Pathogens	Absence

**▶ APPLICATIONS**

- Purifying masks
- Peeling masks
- Skin care products for oily or acne-prone skin with blemish problems
- Rejuvenating products in case of fine lines and dull complexion
- Anti-cellulite and legs-refining products
- Toothpastes and mouthrinses

Use level: 0.5 to 3.0 %.

The ENN' ACTIVE PAPAYA should be added in your preparation at a temperature that does not exceed 40°C.

To keep the activity of papain, it is better to use the ENN' ACTIVE PAPAYA in anhydrous formulations or in formulations containing polymers such as carbomer or glucan. It is also known that the activity of papain is much disturbed when using oils and surfactants in the formulation.

**▶ TOXICITY**

Oral toxicity:	Not considered as toxic
Skin irritation:	Not irritant
Skin sensitisation:	Not sensitising

**▶ PRODUCT IDENTIFICATION**

<i>INCI Name (EU)</i>	<i>INCI Name (US)</i>	<i>CAS no.</i>	<i>Einecs no.</i>
Maltodextrin	Maltodextrin	9050-36-6	232-940-4
Carica Papaya Fruit Extract	Carica Papaya (Papaya) Fruit Extract	84012-30-6	281-675-0

Custom tariff no. (EU): 1302197000

**▶ STORAGE**

Keep in the original tightly-closed container, at room temperature (20°C), away from light, heat and humidity sources.