

UVA  
GRAPE

FRULIX

LIQUID FRUITS • EXCLUSIVE TECHNOLOGY

ASSESSA

INNOVATION FOR A GREENER WORLD



## GRAPE

### NATURAL ANTIOXIDANT AND VASCULAR PROTECTOR

The cultivation of grapes dates back to the earliest days of the history of civilization. It is believed that the plant originates from Asia Minor and was cultivated by the Egyptians and pressed by the ancient Greeks to make wine. The plants currently cultivated are the result of various crossings between varieties originally from Europe and North America carried out with a view to preserving the resistance, productivity, beauty and flavor of the fruits. Fresh grapes contain glycosides, proteins, vitamins B1, B2, B5, B6 and PP, as well as provitamin A, mineral salts (especially potassium) and antioxidant anthocyanins. Grapes act as a natural antioxidant and are recommended as a vascular protector in diets for the prevention of heart disease.

## FUNCTIONS

Grapes are rich in hydroxy acids, vitamins, essential sugars, antioxidant bioflavonoids and mineral salts. **FRULIX UVA (GRAPE)** possesses astringent, nutrient and protective properties and is recommended in products for the treatment of aged and tired skin and in nutritive and protective creams and lotions. **FRULIX UVA (GRAPE)** may also be used in products for the treatment of dull, lifeless hair, for conditioning and protection in leave-on and rinse off products.

NATURAL  
ORIGIN  
99.55%

## FRULIX UVA (GRAPE)

It's obtained through an exclusive biotechnological process that mimics the natural ripening of fruit. Using the fruits' native enzymes **ASSESSA** transforms its pulp into a crystalline liquid with all the active ingredients of the fruit, in concentrations equivalent to those found in nature.

**PRODUCED  
WITHOUT  
THE ADDITION  
OF SOLVENTS**



# FRULIX EXCLUSIVE PROCESS



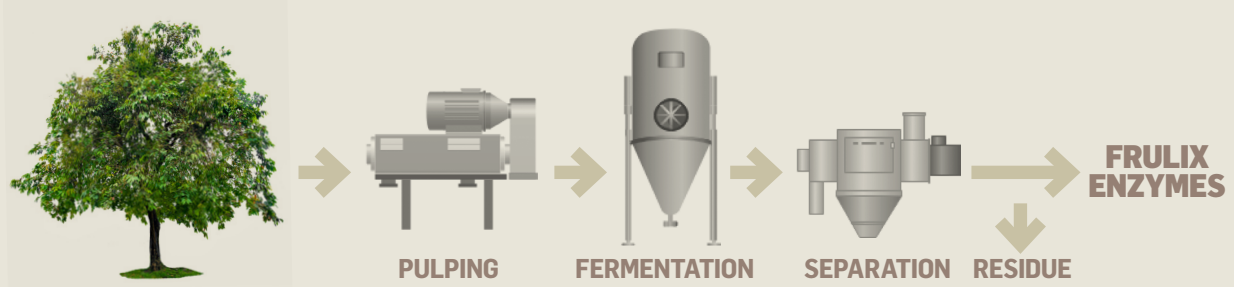
## 1 THE TECHNOLOGY

FRULIX is obtained through an exclusive biotechnological process that mimics the natural ripening of the fruit. Using the native enzymes that change the texture of the fruit during its ripening, it is possible to transform its pulp into a crystalline liquid.



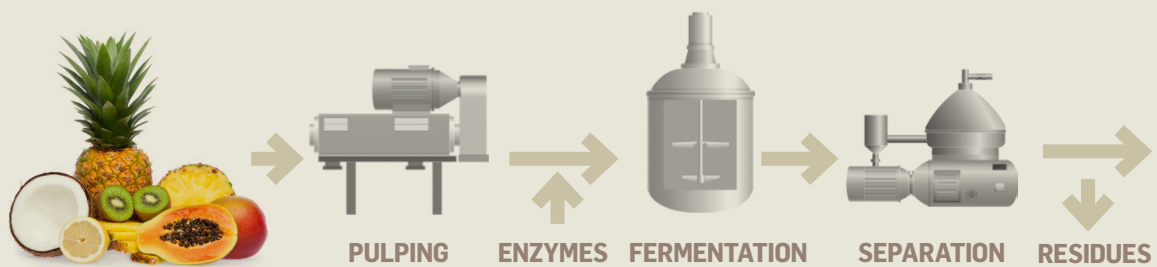
## 2 PRODUCTION OF ENZYMES

The fruits are harvested, washed and processed into a paste. The slurry is inoculated with microorganisms and the semi-solid mass is placed to ferment. The mixture is separated and the enzymes are removed from the wort.



## 3 PROCESSING THE FRUITS

The fruits are harvested, washed and processed into the pulp. Seeds and bark are discarded. The pulp is inoculated with the Frulix Enzymes. The residues (fibers, solids) are removed and FRULIX is obtained. The product is stabilized and preserved.



## 4 FRULIX

The clear liquid from the separation step receives preservatives, mixture and filling.





AS A MORE CONCENTRATED PRODUCT, **FRULIX UVA (GRAPE)** SHOULD BE USED IN SMALLER CONCENTRATIONS THAN THOSE NORMALLY USED WHEN MAKING FORMULAS WITH CONVENTIONAL EXTRACTS.



#### APPLICATIONS

##### SKIN CARE PRODUCTS

EMULSIONS, MASKS, SERUMS, MATURE SKIN PRODUCTS, LIQUID AND BAR SOAPS.

##### HAIR CARE PRODUCTS

SHAMPOOS, CONDITIONERS, HAIR MASKS, LEAVE ON AND SERUMS.

**FRULIX IS A SOLVENT FREE PRODUCT**

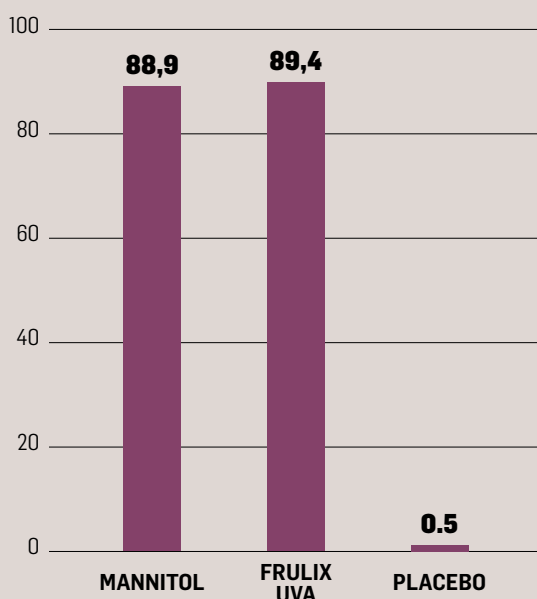
##### INCI NAME

Vitis Vinifera Fruit Extract, Sodium Benzoate and Potassium Sorbate

## ANTIOXIDANT ACTION

The test for antioxidant action was carried out in accordance with the Fenton protocol, comparing FRULIX UVA (GRAPE) with a saline solution (placebo) and with mannitol as a positive control. The graph below shows the antioxidant action compared to the action of the saline solution.

### INHIBITION OF DECOMPOSITION OF DEOXY-RIBOSE (FENTON)



FRULIX UVA (GRAPE) shows good antioxidant activity when compared to the placebo (89.4%).



## USAGE LEVELS

**FRULIX UVA (GRAPE)** is compatible with the majority of ingredients used in cosmetic formulations for the treatment of skin and hair and may be incorporated cold, directly into the aqueous phase of the formulas, in accordance with the suggestions of usage levels found in the table below. It is stable at temperatures up to 90°C, in pH conditions from 4.00 to 11.00.

PRODUCT	(%)
Moisturizing cream	0.3 to 0.8
Nutritive lotion	0.2 to 0.6
Anti-aging cream	0.3 to 0.8
Face mask	0.8 to 1.5
Shampoo	0.2 to 0.4
Conditioner	0.2 to 0.4
Leave on	0.3 to 1.0
Shower gel	0.2 to 0.4

UVA  
GRAPE

NATURAL  
ORIGIN  
99.55%

# FRULIX LINE

FRULIX  
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**AÇAÍ**

[Euterpe Oleracea Fruit Extract]



**ACEROLA**

[Malpighia Glabra Fruit Extract]



**APPLE (MAÇÃ)**

[Malus Domestica Fruit Extract]



**BANANA**

[Musa Sapientum Fruit Extract]



**BLUEBERRY  
(MIRTILO)**

[Vaccinium Myrtillus Fruit Extract]



**CAJÁ**

[Spondias Mombin Fruit Extract]



**COCOA (CACAU)**

[Theobroma Cacao Fruit Extract]



**CUPUAÇU**

[Theobroma Grandiflorum]



**GRAPE**

[Vitis Vinifera Fruit Extract]



**GUAVA (GOIABA)**

[Psidium Guajava Fruit Extract]



**JABUTICABA**

[Plinia Cauliflora Fruit Extract]



**KIWI**

[Actinidia Deliciosa Fruit Extract]



**LEMON (LIMÃO)**

[Citrus Limon Fruit Extract]



**LYCHEE (LICHIA)**

[Litchi Chinensis Fruit Extract]



**MANGO (MANGA)**

[Mangifera Indica Fruit Extract]



**MELON (MELÃO)**

[Cucumis Melo Fruit Extract]



**MULBERRY (AMORA)**

[Morus Nigra Fruit Extract]



**ORANGE  
(LARANJA)**

[Citrus Aurantium Dulcis Juice]



**PAPAYA  
(MAMÃO)**

[Carica Papaya Fruit Extract]



**PASSION FRUIT  
(MARACUJÁ)**

[Passiflora Edulis Fruit Extract]



**PEACH  
(PÊSSEGO)**

[Prunus Persica Fruit Extract]



**PEAR  
(PERA)**

[Pyrus Communis Fruit Extract]



**PINEAPPLE  
(ABACAXI)**

[Ananas Sativus Fruit Extract]



**PITANGA**

[Eugenia Uniflora Fruit Extract]



**RASPBERRY  
(FRAMBOESA)**

[Rubus Idaeus Fruit Extract]



**SOURSOP  
(GRAVIOLA)**

[Annona Muricata Fruit Extract]



**STRAWBERRY  
(MORANGO)**

[Fragaria Vesca Fruit Extract]



**WATERMELON  
(MELANCIA)**

[Citrullus Lanatus Fruit Extract]



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