

# BANANA

# FRULIX

LIQUID FRUITS • EXCLUSIVE TECHNOLOGY



## FRULIX BANANA

**FRULIX BANANA is obtained through an exclusive biotechnological process that mimics the natural ripening of the 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 ADICTION OF SOLVENTS**

# ASSESSA

INNOVATION FOR A GREENER WORLD



## BANANA

### HIGH NUTRITIVE VALUE, RICH IN SUGAR AND MINERAL SALTS

The symbol of tropical countries and famous throughout the world, the fruit of the banana tree is the most popular in Brazil. Although it is not a native of the American continent (the majority of cultivated bananas originated in Asia, although there are centers of secondary origin in East Africa and the Pacific Islands), the plant adapted extremely well to soil and climate and became one of the country's main export products. The banana tree belongs to the Musaceae family and is a plant with a subterranean stem, which develops in a horizontal direction from which leaves sprout and grow out of the ground, forming a false trunk. Only once in its life does each stem put forth a branch of flowers which, little by little, turns into a bunch of bananas, formed of clusters which, in all may contain two hundred bananas. Having produced its bunch, another stalk begins to grow from the subterranean rootstock from which the next harvest will emerge. Although the banana can be found all year round, is during the months of May and June that the best harvests are gathered. The banana is a fruit of high nutritive value, and is rich in sugar and mineral salts, principally calcium, potassium, phosphorous and iron, as well as vitamins A, B1, B2 and C. The banana has astringent properties.



## FUNCTIONS

**FRULIX BANANA presents the emollient, protective, moisturizing, nutrient and remineralizing properties of the natural fruit and is recommended for use in hair care products (shampoos, mousses, conditioners) in highly glossy formulas for dry, dyed and weakened hair. FRULIX BANANA is recommended for the treatment of skin, in products with moisturizing and nutritive appeal.**

## COMPOSITION

### PROTEINS (mg/L)

AVG.	MINIMUM
127.90	100.00

### MINERALS

ELEMENT	CONC. (mg/L)
Na	199.00
K	796.02
Ca	69.62
Mg	226.14
Mn	2.71
Cu	0.90
Zn	2.72
Fe	9.04

### VITAMINS \*

VITAMIN	CONC. (mg/L)
Thiamine (B1)	0.22
Folic Acid	1.02

\*Tested after 4 months from manufacturing

# BANANA

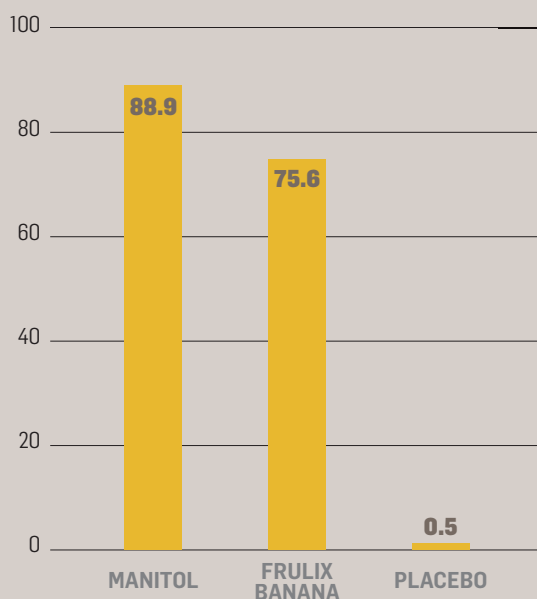
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## ANTIOXIDANT ACTION

The test for antioxidant action was carried out in accordance with the Fenton protocol, comparing FRULIX BANANA with a saline solution (placebo) and with manitol 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 BANANA shows good antioxidant activity when compared to the placebo (75.6%).

AS IT IS A MORE CONCENTRATED PRODUCT, FRULIX BANANA SHOULD BE USED IN SMALLER CONCENTRATIONS THAN THOSE NORMALLY USED WHEN MAKING FORMULAS WITH CONVENTIONAL EXTRACTS

### INCI NAME

Musa Sapientum (Banana) Fruit Extract, Sodium Benzoate and Potassium Sorbate



## USAGE LEVELS

FRULIX BANANA 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
Serum	0.5 to 1.0
Hair Mask	0.3 to 1.0
Shampoo	0.2 to 0.4
Conditioner	0.2 to 0.4
Leave on	0.3 to 1.0

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