

*Melavoid*<sup>TM</sup>

Global lightening effect



*Miscellaneous*

# MELAVOID™

## Global lightening effect

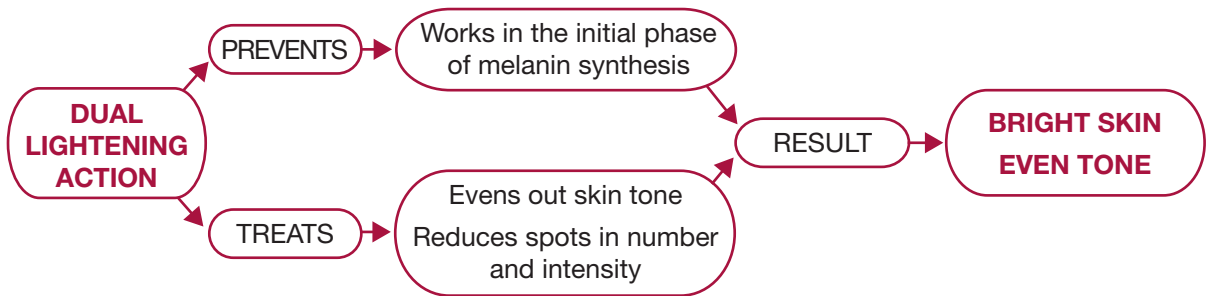


To show a bright and even skin tone is one of the major cosmetic concerns of consumers.

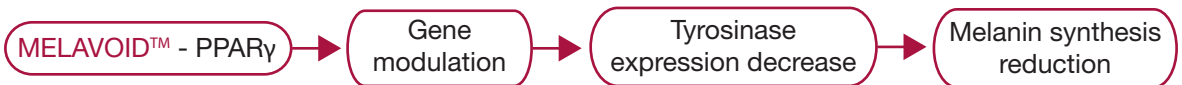
- In some countries, fair skin is perceived as more attractive.
- Spots and irregular pigmentation give an aged appearance which does not correspond with reality.

**MELAVOID™, lightening active ingredient, works on the initial mechanisms of pigmentation, decreasing skin tone and spots**

MELAVOID™, through its binding to PPAR $\gamma$ , acts on the previous phases of the melanin metabolism.



Regulates melanogenesis by gene modulation of melanocytes:



MELAVOID™ is obtained from the roots of punarnava (*Boerhaavia diffusa*), standardized in boeravinones.

An in silico screening demonstrated that boeravinone B, a component of *Boerhaavia diffusa*, is the suitable active to act as a natural agonist of PPAR $\gamma$ .



**Tested on asian skin**

**Works both in deep and superficial spots**

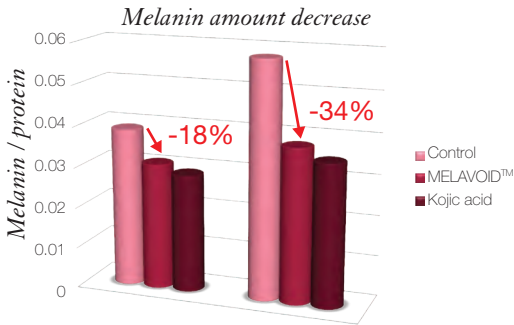
# In-vitro efficacy

## • Depigmenting activity

The activity of **MELAVOID™** on human melanocytes NHEM (Normal Human Epidermal Melanocytes) was assessed and demonstrated:

- 63% of tyrosinase expression reduction
- 55% of tyrosinase activity decrease

In the same culture, melanin synthesis reduction was specifically evaluated:



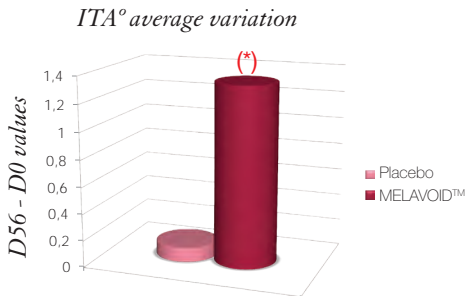
At the same time, it was observed that **MELAVOID™** maintains **melanocytes viability** (unlike kojic acid) by reducing their number of dendrites, thus preventing an accumulation of pigment in the epidermis.

**MELAVOID™** decreases by 34% the amount of melanin without affecting melanocytes viability

# In-vivo efficacy

Tests performed in a panel of Asian volunteers. 56 days of treatment with **MELAVOID™** versus placebo.

## • Evaluation of normal skin without spots



An increase of ITA° parameter means a decrease of skin pigmentation intensity.

**MELAVOID™** produces a maximum ITA increment up to 28%, diminishing skin pigmentation intensity

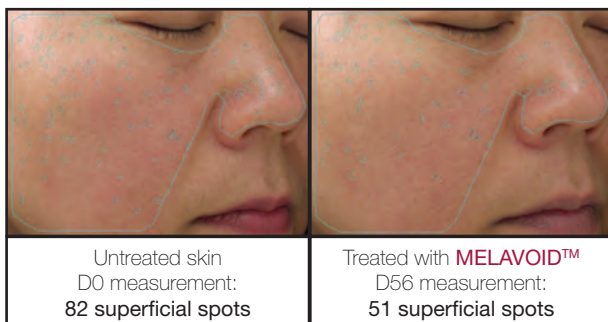
(\*) **MELAVOID™** statistically significant respect to D0

## • Evaluation of spotted skin

In the hyperpigmented area, the ITA° parameter is increased by 5% on average.

This difference about the value of ITA° in the spotted skin results in **an homogeneous and uniform tone**.

**MELAVOID™** is an intelligent depigmentant; its activity is higher in areas with spots and thus evens skin color



## Reduction of pigmentary spots

The **maximum reduction** obtained by **MELAVOID™** in the different types of pigmentary spots is:

- -19% in superficial spots
- -15% in UV spots
- -28% in brown spots

## Technical specifications

- *Melavoid™ 73650*

PROPERTIES	Natural lightening agent that decreases skin tone evenly and uniformly, reducing the number of different types of hyperpigmentation spots.
ACTIVE MOLECULES	Boeravinones
APPEARANCE	Transparent liquid Pale brown color
SOLUBILITY	Soluble in aqueous solutions
RECOMMENDED DOSE	1 - 3 %

## Cosmetic applications

- Facial lightening treatments
- Specific facial and hand anti-spots
- Skin lightening body milks
- Neck and décolletage treatments
- Photo-aging repairing treatments
- Anti-aging treatments
- Make-up lines
- Deodorants

## Formulation

- *Skin Lightening Treatment*

	INCI / PCPC	% (w/w)
A	Aqua (Water)	70.93
	Potassium Sorbate	0.25
	Sodium Benzoate	0.25
	Trisodium Ethylenediamide Disuccinate	0.20
	<b>APPLE - ECO</b>	<b>2.50</b>
	<b>MELAVOID™</b>	<b>3.00</b>
	Propanediol	0.90
B	Dicaprylyl Ether	2.00
	Cellulose	0.30
	Xanthan Gum	0.90
C	Titanium Dioxide (CI 77891)	0.65
D	Cetearyl Alcohol, Cetearyl Glucoside	1.50
	Polysilicone-15	1.00
	Dicaprylyl Ether	4.00
	Palmitoyl Proline, Magnesium Palmitoyl Glutamate, Sodium Palmitoyl Sarcosinate	2.00
	Cyclopentasiloxane, C30-45 Cetearyl Dimethicone Crosspolymer, PEG/PPG-20/23 Dimethicone	3.50
	Dimethicone/Vinyl Dimethicone Crosspolymer	1.50
E	HDI/Trimethylol Hexyllactone Crosspolymer, Silica	2.00
	Silica, Titanium Dioxide	2.50
F	Parfum (Fragrance)	0.10
G	Aqua (Water), Lactic Acid	0.02

