



# INNER SKIN ACTIVATORS NICOMENT

---

## USES

Cellulitis treatments. Tonifier and stimulator of blood microcirculation  
Prevention of hair loss  
Co-operator in gingivitis treatment

## ORIGIN

Synthetic way from natural compounds  
INCI name (Eu, Usa)  
Menthyl Nicotinate, Menthol

## UTILIZATIONS

Creams and gels for cellulitis treatments  
Hair loss lotions  
Toothpastes and mouth washes

## FORMULATION SUGGESTIONS

Liposoluble. It can be used in cold or warm production processes

## RECOMMENDED QUANTITIES

% active = 100%  
% of use 0.5-2%

## PROPERTIES AND FEATURES

NICOMENT is a synthetic product of natural origin that joins the vasodilating properties of nicotinic acid to the refreshing properties of natural l-menthol. Besides its high skin affinity, that allows a quick and effective absorption, NICOMENT effects a deep cutaneous micro-massage, generated by the simultaneous cool-warm effect, that gives an unique sensation of pleasant wellness.

These characteristics make NICOMENT the most suitable ingredient for cellulitis cosmetic treatments, for trichological products as hair loss lotions, and for mouth sanitizing products, as toothpastes and mouth washings.

**Mechanism of action:** the vasodilation effect of NICOMENT promotes the deep blood microcirculation minimizing the rubefaction of the surface layers of the skin, due to the contiguous refreshing action of menthol radical, also when used at high doses (1 – 2%).

Differently from other niacin derivatives (as Methyl Nicotinate) that give a massive rubefaction also at low doses (0,1 – 0,2%) (that is ten times less), NICOMENT has high tolerability in the most part of users and it does not cause erythema (see test below). Refreshes and tonifies the cutaneous surface, improving its transpiration and oxygenation.

**Cellulitis treatments:** NICOMENT effects an indirect purifying action, as it contributes to eliminate the possible present toxins, through the increase of blood microcirculation in the cellulitis panels that suffers of an excessive

stasis of interstitial liquids.

Besides the “skin micro-massage”, NICOMENT carrier and bio-activating properties help the deep penetration of the whole active substances present in the formula.

**In trichological products** the important and deep vasodilation gives a help to increase the supplying of nourishing substances to the hair bulb, and generally to recover the natural vitality of hair scalp. The consumer perceives a pleasant sensation of long-lasting freshness, as well as the disappearing of the itching sensation typical of the hair loss diseases.

NICOMENT carries out also a balancing and normalizing action on the sebaceous secretion, besides an improving of the skin blood microcirculation. This feature makes NICOMENT specially suitable help to solve the seborrhoeic alopecia problems, for greasy dandruff and, more generally, for dermo-hypodermosis or for the spoiling of fat or connective tissues. In fact it helps in every case of hypodermic infiltrations and of standstills of skin blood circulation rhythm.

**In mouth sanitizing products:** NICOMENT stimulates the microcirculation of gums, thus it helps very well to solve the problems of gingivitis. It gives to the finished product a pleasant and long-lasting sensation of a fresh activation. In toothpastes and mouth washings NICOMENT gives a big help if utilized constantly for a careful oral hygiene.

## IN VIVO TESTS

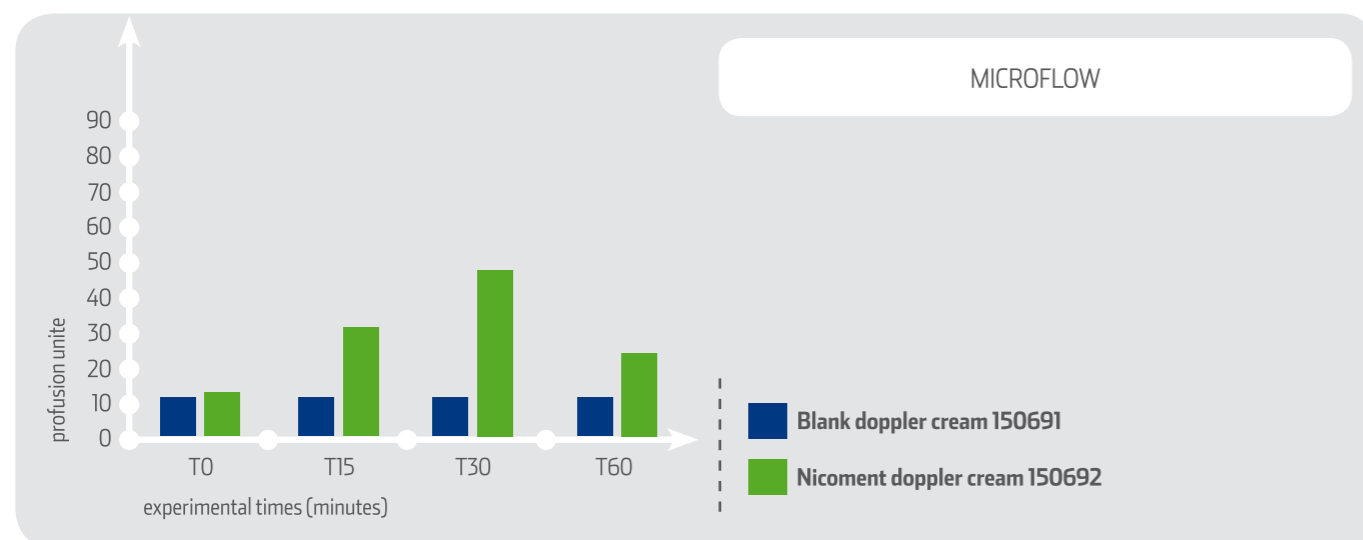
BLOOD MICROCIRCULATION WITH LASER/DOPPLER FLUXOMETRY - **Increase of 460%.**

Test made in collaboration with UNIVERSITÀ DI PAVIA - LABORATORY OF PHARMACOBIOCHEMISTRY, DEPARTMENT OF PHARMACOLOGICAL AND TOXICOLOGICAL SCIENCES. The evaluation of surface microcirculation activity was carried out with Laser Doppler – Periflux, Perimed, Sveden.

Two creams are compared in this test :

- BLANK DOPPLER CREAM 150691 (placebo)
- NICOMENT DOPPLER CREAM 150692 with NICOMENT 2%.

Both the products were applied with quantities of 2mg/cm<sup>2</sup>. The measurements were carried out at 0,15,30 and 60 minutes from the application.



The graphic shows a significant increase of the surface blood microcirculation after the application of the cream containing 2% of NICOMENT with an increase of 460% in comparison with the blank, after 30 minutes.

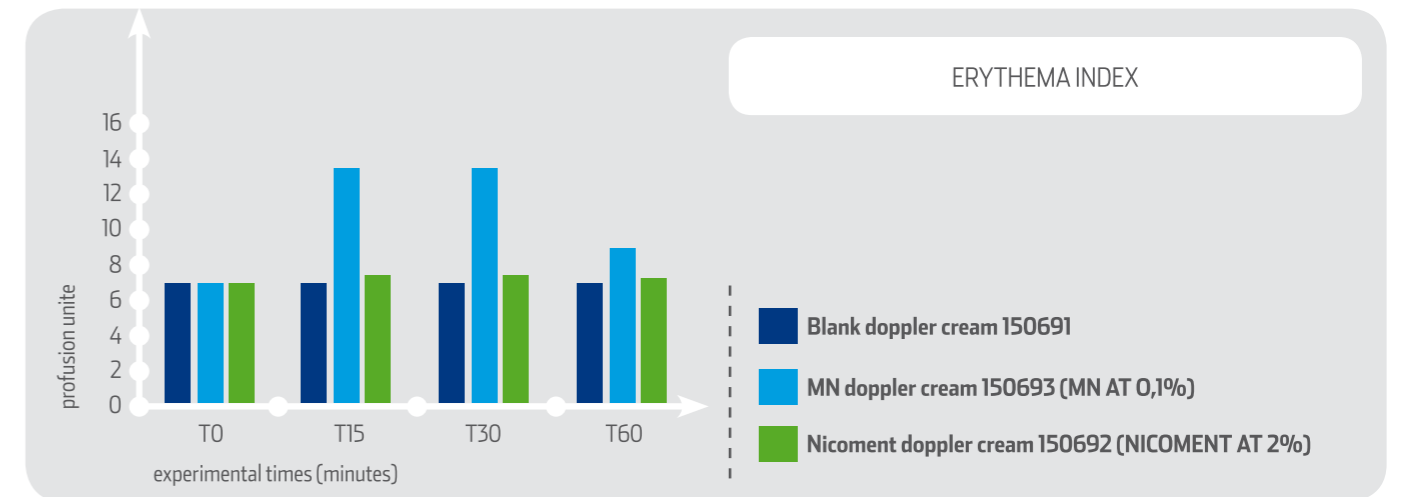
## IN VIVO TESTS

SKIN ERITHEMA INDEX WITH COLORIMETRIC TECHNIQUE (10 volunteers) – **no formation of erythema.**

The test was made in collaboration with l'UNIVERSITA' DI PAVIA – LABORATORY OF PHARMACOBIOCHEMISTRY, DEPARTMENT OF PHARMACOLOGICAL AND TOXICOLOGICAL SCIENCES. The main side effect of the active substances that act on surface microcirculation is the formation of edema and skin rash usually associated with itching or burning and in some cases with rupture of fragile capillaries.

In this test were compared 3 creams as follows.

Methyl Nicotinate, present in the third cream, currently is the most used rubefacient in products for the treatment of cellulite. It is compared at doses 20 times lower than NICOMENT because it is well known that a higher concentration causes, in some individuals, severe redness, itching or even irritation.



The test shows no increase index of erythema of cream containing NICOMENT compared with placebo, while the product containing Methyl Nicotinate, induced an appreciable reddening effect on the skin of each volunteer, associated in 6 of them to itch.

## IN VITRO EVALUATION OF THE EYE IRRITATING POTENTIAL OF NICOMENT

### RESULT INTERPRETATION

The evaluation of the irritating potential of the product is carried out by comparing tested product IS valued obtained during the test with the scale indicating dangerousness, as reported below:

IS VALUE	PRODUCT CLASSIFICATION
≤ 0,9	practically non irritant
1 - 4,9	slightly irritant
5 - 9,9	moderately irritant
10 - 21	strongly irritant

### RESULT AND CLASSIFICATION OF TEST PRODUCT

Summary of the data and evaluation of the possible irritating power of the tested product.

SAMPLE	IRRITATION SCORE IS	CLASSIFICATION
CR&D s.r.l. cosmetic research & development NICOMENT cod. CRDNM006 lot. n. 10NX16110	0,86	practically non irritant

According to the presence of blood vessels alterations in the experimental model and to the comparison with the reference scale, the product under study shows a **IS value of 0.86 - practically non irritant.**

## CONCLUSIONS

The above reported table shows the alteration of blood vessels of the experimental model used in the test expressed by means of IS value. The data are recorded after the application of the product under study. According to the adopted in vitro model:

**CR&D s.r.l. cosmetic research & development NICOMENT COD. CRDNM006 LOT. n. 10NX16110 is practically non irritant.**

## EXAMPLE OF FORMULAS TO USE NICOMENT

PRODUCT NAME: ANTI-CELLULITIS MASSAGE CREAM CODE M: 0811102			
PHASE	INGREDIENTS (COMMERCIAL NAMES)	INCI Name	CONC. %
A	beautyolive 3	hydrogenated olive unsaponifiable, hydrogenated	7,00
A	tegosoft op	ethylhexyl palmitate	7,00
A	cetylstearyl alcohol	cetearyl alcohol	2,00
A	kremerlin pura	olus	4,00
A	beautyderm hp	glyceryl stearate, cetearyl alcohol, stearic acid, sodium	7,00
A	<b>nicoment</b>	menthyl nicotinate, menthol	2,00
B	deionized water	aqua	59,00
B	<b>glycacid</b>	aqua, glycerin, hydrolyzed glycosaminoglycans	3,00
B	aristoflex avc	ammonium acryloyldimethyltaurate/VP copolymer	0,5
C	horsechestnut extract	propylene glycol, aqua, aesculus hippocastanum	2,00
C	<b>glycogem centella</b>	centella asiatica meristem cell culture, glycerin, aqua	2,00
C	<b>carnoxyn</b>	carnitine fumarate, sodium pyruvate, succinic acid	2,00
C	<b>glycoxantine</b>	caffeine, theophyllin, theobromine, hydrolyzed	2,00
C	microkill ect	benzyl alcohol, salicylic acid, glycerin, sorbic acid	1,00

Disperse Aristoflex and Glycacid (part B) in water, leaving to impregnate by a fast mixing for 15 minutes, then heat to 70° C. Heat part A to 70° C. Add A to B by fast stirring. Use fast Turbo for 2 minutes. Cool to 40° C and add C with fast stirring for 2 minutes, and slow until room temperature.

PRODUCT NAME: ANTI HAIRLOSS LOTION CODE M: 081110			
PHASE	INGREDIENTS (COMMERCIAL NAMES)	INCI Name	CONC. %
A	<b>nicoment</b>	menthyl nicotinate, menthol	2,00
A	solubilisant LRI	ppg-26-buteth-26, peg-40 hydrogenated castor oil	1,00
A	alcohol (C type)	alcohol	1,00
A	inutec sp1	inulin lauryl carbamate	50,00
A	"ice water" fragrance	fragrance	1,00
B	deionized water	aqua	0,10
B	<b>glycacid</b>	aqua, glycerin, hydrolyzed glycosaminoglycans	40,90
B	<b>oliglycan</b>	zinc PCA, magnesium PCA, copper PCA, manganese PCA	1,00
B	<b>carnoxyn</b>	carnitine fumarate, sodium pyruvate, succinic acid	2,00
B	<b>glycogem buddleja</b>	buddleja davidii cell culture extract, glycerin	1,00
			2,00

Mix phase A in this order to obtain a clear product. Add B to A in fast mix.

These formulas have submitted to limited test and worked well. In any case, the formulators adopting these guidelines must independently verify that stability and long-term functionality tests are performed. It's good idea to conduct safety tests on finished products before introducing them on the market.