nano cellulitech

Anti-celulite Action

Active Ingredients: Caffeine, Green Tea Oil, Arnica Montana Oil and Essential Oil of Palmarosa.

Nano Cellulitech is a blend of active ingredients encapsulated in lipid particles with particle diameter larger than 200nm. Blend encapsulation through the Nanovetores Technology allows the stabilization of sensitive components, therefore, complex of being formulated in its free form. The blend of active ingredients acts synergistically in the treatment and size reduction of cellulite, providing draining and anti-inflammatory action, working as free radicals scavengers, reducing lipogenesis, activating lipolysis with a significant improvement of microcirculation. Nano Cellulitech reduces the orance peel aspect in just one application.

Features

Aspect: Milky liquid from white to cream.
Usage Concentration: 0.5 to 10,0%
pH stability: 2.5 to 7.0
Solubility: Water Dispersible
Particle: Lipid
Release Trigger: Enzyme

Benefits

- Cellulite Treatment
- Improves blood flow
- Size reduction
- Draining and anti-inflammatory action, free radicals' scavenger
- Reduction of lipogenesis and lipolysis activator
- Hydration

Usage

Creams, lotions, emulsions, gels, and body sprays.

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Description

The blend of Nano Cellulitech active ingredients acts synergistically in the treatment of gynoid lipodystrophy and size reduction, providing draining and anti-inflammatory action, working as free radicals' scavengers, reducing lipogenesis, activating lipolysis with a significant improvement of microcirculation. Gynoid lipodystrophy, commonly known as cellulite, is a change in the fatty tissue with the appearance of deformations in the skin like the appearance of orange peel. It can occur in any region of the body, however, is more frequent in the area of buttocks and thighs and it affects more women than men (LUPI et al, 2007). Topical treatments for cellulite include several agents and mechanisms of action, starting with those that activate microcirculation, reduce lipogenesis, promote lipolysis, restore the normal structure of the dermis and subcutaneous tissue, and agents that scavenge free radicals or prevent their formation (HEXSEL & SOIREFMANN, 2011).

Caffeine is an alkaloid from the methylxanthine group, substances which are characterized as agents that reduce lipogenesis and promote lipolysis. In addition to having astringent action, cleaning and promoting skin balance, caffeine is a regenerating agent and improves blood microcirculation (MIYAZAKI, 2008). Rich in polyphenols (bioflavonoids) and catechins, especially epigallocatechin-3-O-gallate, Green tea oil acts synergistically with caffeine enhancing the lipolytic action through inhibition of phosphodiesterase, an enzyme which degrades cAMP, a type of cell messenger (WESTER-TERP-PLANTENGA, 2010). Known to be a potent antioxidant, green tea oil helps neutralizing the action of free radicals that act on aging skin, caused mainly by UV radiation (DAL BELO et al., 2009). This oil also stimulates keratinocytes, which act in the cell renewal process, normalizing the skin regeneration speed (HSU, 2005). Furthermore, catechins also promote activation of microcirculation. Arnica Montana oil has proven anti-inflammatory action and has among its main components, flavonoids such as quercetin and their derivatives, sesquiterpenes, lactones, alcohols, carotenoids, essential oil, inulin, tannins, and other constituents (YUI, LINARELLI; ZE-LANTE, 1998; MACEDO et al, 2004). Palmarosa essential oil is rich in geraniol, and has antioxidant and anti-inflammatory activity, also acting in toning, cell regeneration and skin whitening (CHEN & VILJOEN, 2010;. LAWRENCE, et al, 2012).

The non-existent chemical aggression and natural characteristics of Nano Cellulitech allow the daily use of the blend, ensuring a significant reduction of cellulite in the short and long term.

Regulatory Information

INCI NAME	CAS NUMBER
AQUA	7732-18-5
LINOLEIC ACID	60-33-3
OLEIC ACID	112-80-3
CAMELLIA SINENSIS LEAF OIL	68916-73-4
CAFFEINE	58-08-2
ARNICA MONTANA FLOWER OIL	68990-11-4
POLYSORBATE 80	9005-65-6
CYMBOPOGON MARTINI OIL	84649-81-0
SORBITAN OLEATE	1338-43-8
PHENOXYETHANOL	122-99-6
CAPRYLYL GLYCOL	1117-86-8
BHT	128-37-0

Informações Físico-Químicas

PHYSICAL STATE	LIQUID
FORM	MILKY
COLOR	WHITE TO CREAM
ODOR	CHARACTERISTIC
pH	2.5 TO 5.5
SOLUBILITY	WATER DISPERSIBLE
RELATIVE DENSITY	0.9 TO 1.1 g/ml
CHEMICAL IDENTITY	ORGANIC
CHARACTERIZATION	BLEND

*As it contains natural active ingredients, the product may change in color and odor.

**As it is a suspension of nanoparticles, agitate before using.

Approved by International Regulations:

China – IECIC

Europa – EC Cosing

EUA - CIR

Australia – AICS Inventor

Brazil – ANVISA

STORAGE:
KEEP AT ROOM TEMPERATURE, AROUND 25ºC

INCOMPATIBILITY:
ETHANOL AND OTHER ORGANIC SOLVENTS.

References

1 - LUPI, O.; et al. Evaluation of the effects of caffeine in the microcirculation and edema on thighs and buttocks using the orthogonal polarization spectral imaging and clinical parameters. Journal of Cosmetic Dermatology, v. 6, n. 2, p. 102-107, 2007.

2 - HEXSEL, D.; SOIREFMANN, M. Cosmeceuticals for Cellulite. Seminars in Cutaneous Medicine and Surgery, v. 30, n. 3, p. 167-170, 2011.
MIYAZAKI, S.F. Utilização do Chá Verde em Cosméticos. Cadernos de Prospecção, v. 1, n. 1, p. 10-13, 2008.

3 - WESTERTERP-PLANTENGA, M.S. Green tea catechins, caffeine and body-weight regulation. Physiology & Behavior, v. 100, n. 1, p. 42-46, 2010.

4 - DAL BELO, S.E.; et al. Skin penetration of epigallocatechin-3-gallate and quercetin from green tea and Ginkgo biloba extracts vehiculated in cosmetic formulations. Skin Pharmacology and Physiology, v. 22, n. 6, p. 299-304, 2009.
HSU, S. Green tea and the skin. Journal of the American Academy of Dermatology, v. 52, n. 6, p. 1049-1059, 2005.

5 - MACEDO, S.B.; et al. Anti-inflammatory activity of Arnica Montana 6cH: preclinical study in animals. Homeopathy, v. 93, p. 84-87, 2004.
YUI, F.; LINARELLI, M.C.B.; ZELANTE, P.M. Atividade antiinflamatória da Arnica montana. Revista de Ciências Médicas, v. 7, n. 1, p. 21-26, 1998.

6 - CHEN, W.; VILJOEN, A.M. Geraniol - A review of a commercially important fragrance material. South African Journal of Botany, v. 76, p. 643-651, 2010.

7 - LAWRENCE, K.; et al. Antioxidant activity of Palmarosa essential oil (Cymbopogon martini) grown in north Indian plains. Asian Pacific Journal of Tropical Biomedicine, v. 2, n. 2, p. S888-S891, 2012.

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Effectiveness Test

Nano Cellulitech has been clinically tested for its efficacy in an accredited laboratory.

Evaluated product: Body Lotion with Nano Cellulitech 10%

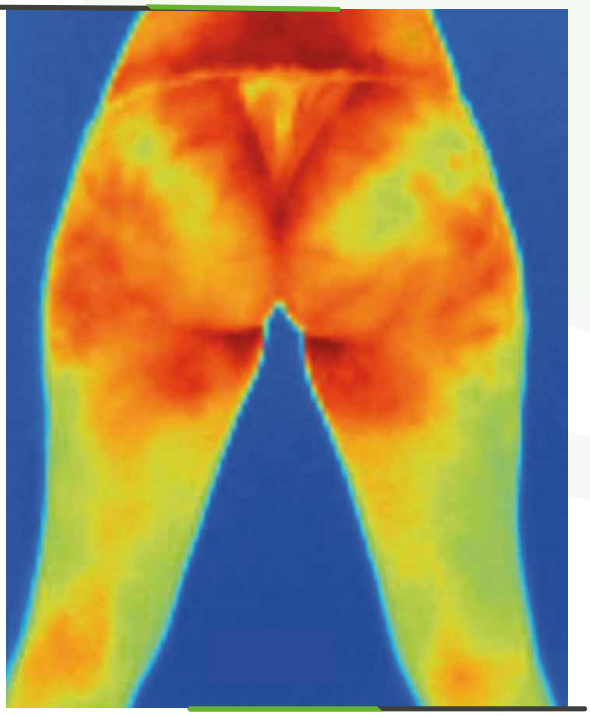
Evaluation period: After application in normal use of the product.

Initial

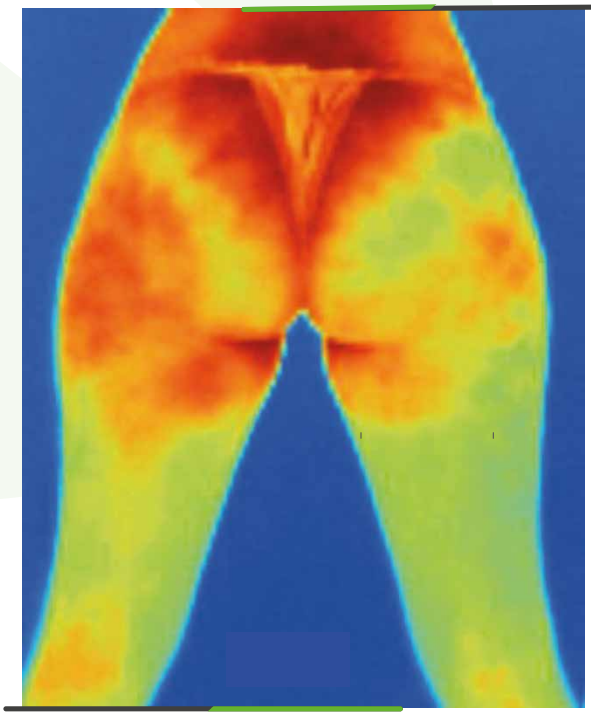
Final

Result: The images show a tendency in reducing signs of Gynoid Lipodystrophy (GL) after the first application of the product.

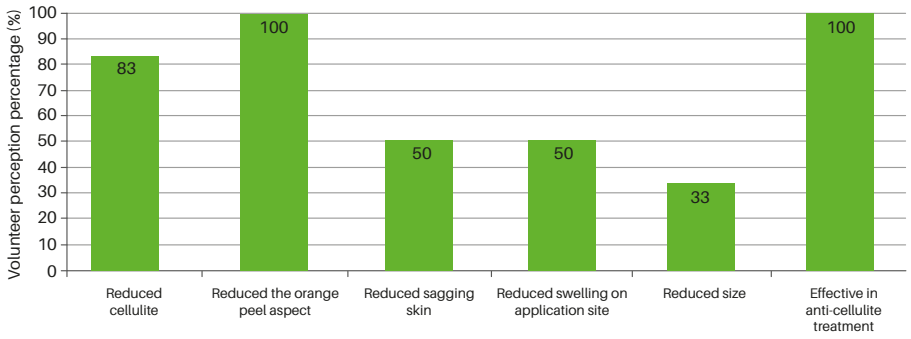
Initial



Final



Result: The images show a tendency in reducing the surface temperature of the skin after the first application, indicating an improvement in blood flow in the region.



Conclusion: By sensory evaluation through clinical effectiveness was observed an improvement in the visual appearance of the orange peel skin aspect and tufted skin for 67% of the research participants. This result indicates that the investigational product showed a trend reducing clinical signs of cellulite after the first application.

Suggested Formula

Body lotion with Nano Cellulitech 10%

PHASE I %

EDTA.....0,10
Glycerin.....2,00
Water qsp.....100,00

Technique: Mix

PHASE II %

Xantham gum.....0,20
Hydroxyethyl.....0,25

Technique: Reserve

PHASE III %

BHT.....0,05
Olivem 1000.....3,00
Oliwax LC.....1,00
Glyceryl Monostearate.....4,00
Mineral oil.....3,00
Triglycerides of caprylic and capric acid.....3,00
Dimethicone.....1,00

Technique: Heat to 70-75°C.

PHASE IV %

Nano Cellulitech.....0,1 - 10,00

Technique: Reserve

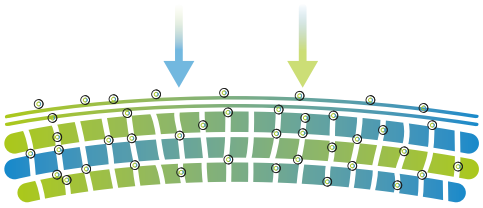
PHASE V %

Preservative.....qs

Technique: Reserve

1 - Disperse phase II into I under agitation and heat until 70-75 ° C;
2 - Add phase III on I+II maintaining agitation and temperature for 10 minutes.;
3 - Reserve
4 - Adjust pH = 5.5-6.5
5 - Add phases IV and V below 40°C

Nanovetores Encapsulation Technology



Multifunctional Lipid Particles that promote hydration and extended effect.

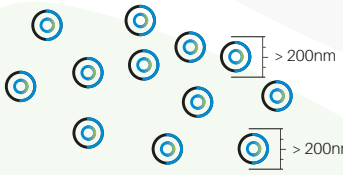
Enzymatic Specific Release Trigger, where enzymes present on the skin disintegrate particles, releasing the active ingredient specifically where it needs to act.

Active Ingredient Protection against oxidation resulted from interaction with external environment and other components of the cosmetic formulation.

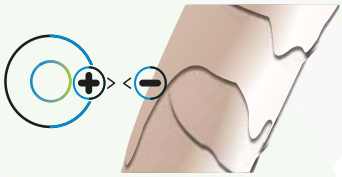
Active ingredient deposition when applied freely

Greater permeation of the active ingredient when encapsulated

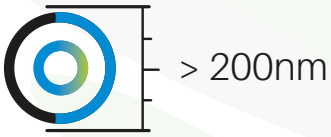
Greater Permeation on the contact surface due to the small size of the capsule.



Monodispersity, that ensures control of the particle size, providing adequate permeation to its proposed action.



Surface Charge Control of the particle, promoting greater affinity with the contact surface.



Secure particles larger than 200nm, biocompatible and biodegradable.

Water Base. Active ingredients are manufactured without the use of organic solvents, ensuring safety for users and the environment.

Use Encapsulated Active Ingredients and Ensure:

- Stability Improvement
- Increased compability in the formulation
- Occlusion of odors
- Increased skin permeation
- Reduced dose
- Use of sensitive active ingredients (without refrigeration)
- Increased Solubility
- Prolonged release
- Increased effectiveness

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