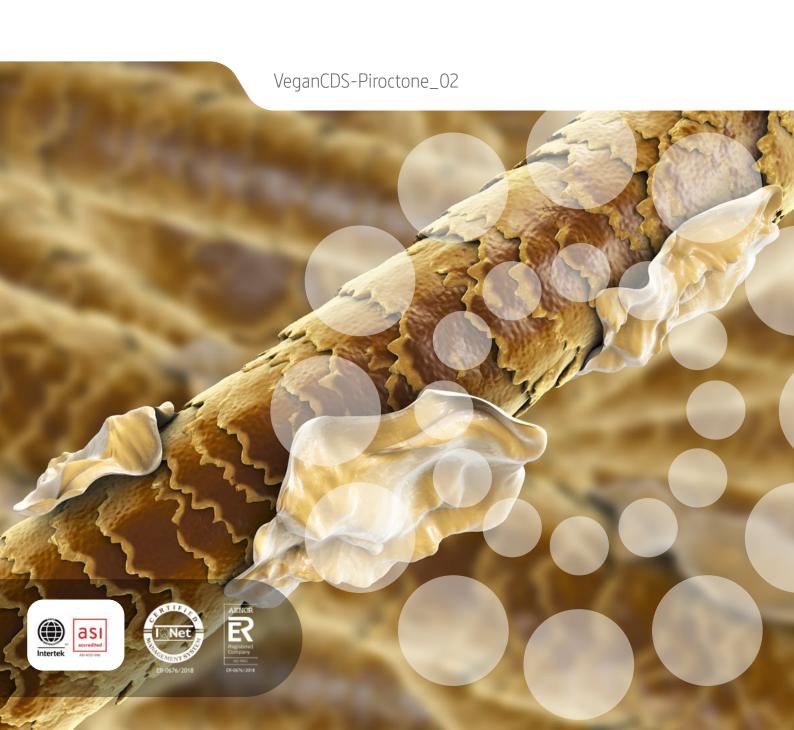


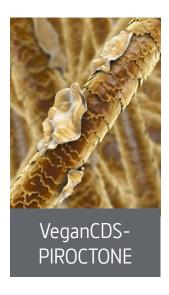


## VeganCDS-PIROCTONE

Superficial Delivery Nanovesicles with 3% Piroctone Olamine



## VeganCDS-PIROCTONE



Pyroctone Olamine (PIROCTONE OLAMINE) is the ethanolamine salt of pyroctone hydroxamic acid.

This compound effectively controls the exaggerated production of cells in the skin and scalp, decreasing desquamation and normalizing the natural renewal cycle.

At the same time it exerts an antibacterial and antifungal activity on germs that cause common skin and scalp disorders. Specifically, it has a specific action against Pityrosporum Ovale, the agent responsible for the production of dandruff.

The combination of both mechanisms of action (reduction of the fungal population and reduction of the formation of new dandruff) makes Piroctone Olamine an effective and safe alternative to the use of Zinc Pyrithione, with the added advantage that it has also been shown to reduce the itching that often accompanies dandruff problems.

On the other hand, this active ingredient also has deodorant properties, reduces the amount of sebum on the skin and, finally, also increases the average thickness of the hair shaft.

#### **ACTIVE INGREDIENT PROPERTIES**

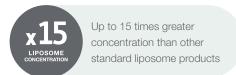
- Controls excess skin desquamation.
- Normalizes the skin renewal cycle.
- Antibacterial and antifungal action.
- Reduces body odor.
- Reduces excess oil on the skin.
- Increases the average thickness of the hair shaft

## BENEFITS OF THE ENCAPSULATION VeganCDS

- Protection of Pyroctone Olamine against degradation.
- Selective release of the active ingredient in the stratum corneum for higher concentration at this level.
- Progressive release for a long-lasting effect.
- Increases the bioavailability of the active ingredient.

# 1-10% RECOMMENDED DOSAGE





#### PROPERTY CHARACTERISTICS

- Pyroctone Olamine encapsulated at 3% in VeganCDS by INdermal system.
- White colored liquid.
- Biomimetic nanovesicle with high moisturizing and repairing effect.



#### INCI

AQUA, MANNITOL, PHOSPHATIDYLCHOLINE, GLYCERIN, PIROCTONE OLAMINE, CETYL ALCOHOL, POTASSIUM SORBATE, SODIUM BENZOATE, CERAMIDE NP, CITRIC ACID, SODIUM CHLORIDE.







## CORNEUM DELIVERY SYSTEM

The active ingredients encapsulated in the "Corneum Delivery" systems are delivered specifically to the most superficial layers of the epidermis, the corneal layer, in order to have the most precise and intense effect at this level.

By using these superficial delivery systems, a far greater concentration of the active ingredient in the corneal layer is achieved, thereby reducing penetration to deeper skin layers. This is very useful in the avoidance of any unwanted effects at these layers, for example, **when using active ingredients with a high irritant factor.** 

The "Corneum Delivery" systems are particularly useful in the **encapsulation of alpha hydroxy acids** as they enable very low pH levels to be maintained in the interior of the nanovesicles, irrespective of the pH of the medium where they are formulated. Consequently, almost all of the acid concentration of the nanovesicle remains unseparated until its delivery to the corneal layer. This facilitates a reduction in the necessary dosage of AHA and the use of **pHs with more physiological formulations**.

Furthermore, the **phospholipids and ceramides** that make up the nanovesicles **rapidly repair damage** caused by the AHA, recuperating the skin barrier and significantly improving tolerance levels.







## OTHER DELIVERY SYSTEMS AVAILABLE



### **DEEP DELIVERY SYSTEM**

The active ingredients encapsulated in the "Deep Delivery" systems are delivered specifically to the deepest layers of the epidermis in order to have the most precise and intense effect on the structures and cells located therein: melanocytes, Langerhans cells, keratinocytes, basal cells, Merkel cells...



## **FOLLICULAR DELIVERY SYSTEM**

The "Follicular Delivery" nanovesicles vectorise the active ingredients to the deepest areas of the hair follicle in order to have the most powerful and selective effect on the germ cells, hair bulb, dermal papilla and sebaceous gland. They are ideal for hair loss and sebum regulating products.



### HAIR DELIVERY SYSTEM

The "Hair Delivery" nanovesicles are formulated with cationic phospholipids and ceramides which give them high capillary adhesion and a considerable resistance to washing and rinsing. They progressively deliver the active ingredients to the hair stem cuticle, penetrating up to the cortex of the hair medulla, particularly when treating damaged hair.



## **CUSTOMISED PROJECTS**

At INdermal, we are happy to place our processes, knowledge and collaboration at your entire disposal in order to provide you with an accessible and speedy nanobiotechnological service, as if it were an extension of your own R+D department. We also offer you any nanoencapsulation system that you may require for your formulations. We would be delighted to receive your ideas or proposals as well as carry out a preliminary analysis free of charge and in complete confidence.











