# Allantoin



# PURE PRODUCT

Based on the growing demand of the cosmetic and pharmaceutical industries for high quality and healthful active ingredients, Deretil Nature places Allantoin on the market.

Allantoin is a natural active ingredient widely found in nature, being part of the metabolism of plants, fish and land animals. Its name comes from structures attached to the umbilical cord in mammals that produce it, called allantois. It has a high bioactivity that is beneficial in numerous processes related to skin health.

Deretil, S.A. has been producing Allantoin, in its chemically synthesized form, for more than 15 years and supplying it at the same time to the international cosmetic and pharmaceutical markets. It is 100 % like the natural one, it has no toxicity and it is completely compatible with other cosmetic raw materials.

Our Allantoin has an assay that exceeds 99 % and it is obtained from the best raw materials in the market. It is a white crystalline powder and colorless in solution.

The new companies of the DERETIL Group extrapolate Deretil's more than 50 years' experience in the field of pharmaceutical intermediates to the manufacture of extracts and natural active ingredients. This experience, the large production capacity as well as an extensive commercial network make of us a benchmark within this sector.





## Benefits:

Many scientific studies support the beneficial effect that Allantoin exerts on certain diseases. The principal properties of Allantoin are listed below:

- Promotes and accelerates cell proliferation: Improves epithelialization (skin regeneration) and the skin condition that has suffered surface damage. Stimulates the epidermis, particularly the granular epithelium area in which new cells are generated to replace those that are damaged or aged. Reduces healing time and thus promotes skin regeneration, which stimulates and accelerates this natural process of the skin.
- Keratolytic action: To perform all its protective and regulatory functions, the epidermis synthesizes a large number of proteins and lipids included in the composition of the stratum corneum. Allantoin interacts with the skin keratin by reducing the thickness of the stratum corneum when an abnormal thickening appears. It destroys dead cell layers and allows the cleansing and improvement of the damaged skin. Thus the accumulation of epidermal material that can be easily contaminated by bacteria, is prevented. Therefore its application on facial and body skin leaves a feel of soft, smooth and healthful skin.
- Calming and moisturizing effect: It reduces the sensation of soreness, since it acts like a mild anesthetic. Also the increased water content reduces irritation, redness, cracks and other unpleasant sensations.
- The US Food and Drug Administration, the official US Agency responsible for the inspections of drugs, has approved the use of Allantoin in different indications to protect and maintain the good conditions of the skin.

### **Applications:**

Thanks to its high quality, high assay and its numerous beneficial properties, our Allantoin has many applications within the cosmetic and pharmaceutical industries.

### As an ingredient for:

- Toothpaste, mouthwash and other oral hygiene products
- Personal care products: Shampoos and gel
- Anti-acne products
- Products to treat psoriasis
- Sunscreens
- Personal cosmetic products: Lotions, creams and lipsticks
- And other cosmetic products for skin health and in some pharmaceutical treatments as well

### **Dosage:**

It has a suitable toxicological profile (non-irritating, non-toxic agent), compatible with most formulation ingredients and packaging materials. The doses range from 0.5 % for a certain emollience to some other percentage (2 %) for stronger effects such as the keratolytic one. An important advantage is that it is very effective at low concentrations, the amounts of use are very low (0.1 % to 2 %). For example, using only 2 % of Allantoin, one obtain the same keratolytic effect than with 10 - 20 % of urea, substance that has the same effect, but with the advantage that it does not appear side effects such as irritations.



# **Sales specifications:**

PARAMETER	SPECIFICATION
Appearance	White to off white crystalline powder
Identification	IR-Spectrum test complies
Appearance in solution	Clear. Colorless
рН	4.0 - 6.0
Loss on drying (w/w)	< 0.1 %
Assay (Potentiometric tritration)	> 99.0 %
European Pharmacopeia	Complies
USP	Complies

Complies with European Pharmacopoeia Ed. 8,2  $\,$  and USP Ed. 37 M.W. = 158,1 g/mol CAS N°. = 97-59-6

PACKAGING MATERIAL	25 kg cardboard box
HANDLING AND STORAGE	Prevent rough handling and keep the container tightly closed in a well-ventilated, cool and dry area. Keep away from flammable, oxidizing and corrosive substances. Avoid exposure to direct sunlight and take precautionary measures against static discharges.
RE-EVALUATION PERIOD	When stored under the condition described below, the re-evaluation period is 8 years. After this period re-testing will indicate its suitability for use

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