

Bioactives

ALLANTOIN



Multifunctionality
for unique skin sensation



DSM

BRIGHT SCIENCE. BRIGHTER LIVING.

ALLANTOIN is a natural identical molecule that was first discovered in the Comfrey plant. With uses tracing back to the 16th century, ALLANTOIN-containing extracts, described in literature, were used to treat wounds and the appearance of burns. Today, ALLANTOIN is generally chemically synthesized to meet worldwide demand. It is also used in cosmetic products as an ideal addition to anti-aging products to help to reduce aging and skin damage.

In addition to its moisturizing properties, ALLANTOIN is an effective anti-irritant, protecting the skin. Due to this multifunctionality ALLANTOIN is broadly used in a wide range of beauty care application, including skin care, toiletries, and sun and hair care products.

Key facts

UNIQUE FEATURES

- Improves Corneocyte's moisture retention capacity
- Supports the natural regeneration of the skin barrier
- Has anti-irritant and soothing properties
- Promotes cell proliferation

BENEFITS

- Provides a smoothening and moisturizing effect
- Leaves the skin's appearance more supple and radiant
- Leads to better skin feeling after showering or washing
- Helps to counter discomfort caused by harsh actives
- Helps to exfoliate dry and damaged cells

COSMETIC APPLICATION

- **Skin care:** facial care, facial cleansing, body care, baby care, hand care creams and lotions
- **Decorative cosmetics / make-up:** lipsticks and glosses
- **Toiletries;** shower and bath gel, as well as after-shave lotions and creams
- **Hair care;** shampoos, conditioners and styling
- **Sun care;** sun protection, after-sun and self-tanning formulas

SUGGESTED CONCENTRATION

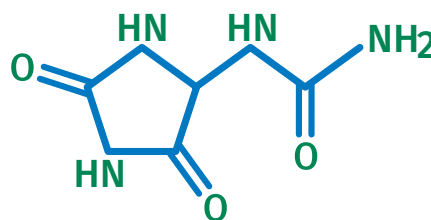
- 0.05–0.3%

INCI NAME (ACTIVE)

- Allantoin

Mechanism

Allantoin, the diureide of glyoxylic acid, is a crystallized oxidation product of uric acid found naturally in comfrey roots. Pure synthetic ALLANTOIN is white to off-white, practically odorless crystalline powder.



Formulating with ALLANTOIN

ALLANTOIN is compatible with most ingredients used in personal care formulations. Water solubility at greater than 0.5% is can become an issue. Allantoin should be either added to water to dissolve at 50°C or alternatively added at 25°C under stirring. ALLANTOIN is insoluble in commonly used oils. A pH between 4 and 8 is recommended.

Solubility of ALLANTOIN in different solvents

Solvent	Temp (°C)	Concentration
Water	20	ca. 0.4%
Water	75	ca. 4.0%
Ethanol	20	ca. 0.1%
5% Glycerin in water	20	ca. 0.8%
Propylenglycol	25	ca. 0.3%
50% Isopropanol in water	25	ca. 0.3%
Sodium lauryl sulfate (30%)	20	ca. 0.8%

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