



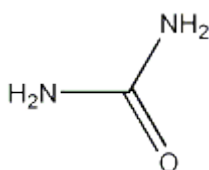
Urea

Technical Data Sheet

Version 1.1

Revision Date 01/01/2016

INCI name: Urea
Chemical name: Carbamide
CAS number: 57-13-6
Molecular formula: $\text{CH}_4\text{N}_2\text{O}$
Molecular Weight: 60.06
Chemical Structure:



Physical/Chemical characteristics

Appearance: fine crystalline powder
Odor: almost odorless
Melting point: 132-135°C
Bulk density: 0.7-0.85g/mL

Pharmacopoeia: USP

Product specification*

Assay: min 99%
pH(10% solution): 6.0-8.0
Loss on dry: max 1.0%
Residue on ignition: max 0.1%

Applications

Urea is an important part of your skin's natural moisturizing system. It is found in the skin's

tissues and makes up to around 7% of our natural moisturizing factor, is to maintain a healthy moisture balance, keeping our skin soft and supple.

It is on the WHO Model List of Essential Medicines, the most important medications needed in a basic health system. It can be used in many medical products, like: ear wax softeners, diuretics, fertility drugs, estrogen supplements and wound or burn ointments.

Urea also can be used in cosmetics, skincare and personal care products, such as: moisturizer, shampoo, conditioner, deodorant, toothpaste, hand cream and foundation.

Properties

- Very good promotes healing
- A natural exfoliant
- Improves penetration of other ingredients
- Good holds and retains moisture

Usage

It is readily soluble in water and therefore easy to formulate. It gives colorless solutions and is compatible with most ingredients, allowing a wide range of applications and formulation possibilities.

*These characteristics are for guidance only and not to be taken as product specifications. The tolerances are given in the product specification sheet. For further product properties, specifications, safety and ecological data, please refer to the MSDS.

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Solubility

Easily soluble in hot water, soluble in cold water, partially soluble in methanol, diethyl ether. Insoluble in n-octanol.

Water	25°C	116.8g/100g
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Methanol	25°C	15.6g/100ml
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Ethanol	25°C	5g/100ml
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Safety and Stability

Urea can be irritating to skin, eyes, and the respiratory tract. Please according to the prescription and consult your pharmacist or physician or other healthcare professional before using.

The product is stable under normal conditions of storage, handling and use. It can be degraded in the condition of alkaline or high temperature.

Regulatory information

- Listed on USP/CP/EuP/BP/JP/IP.
- Complies with European, United States, Canada, Australia/New Zealand, Korea, China, Japan, Brazil and Taiwan cosmetic regulations for use in general cosmetics
- The Food and Drug Administration (FDA) includes Urea on its list of direct food additives affirmed as Generally Recognized As Safe (GRAS). The safety of Urea has been assessed

by the Cosmetic Ingredient Review (CIR) Expert Panel. The CIR Expert Panel evaluated the scientific data and concluded that Urea was safe as used in cosmetics and personal care products.

Shelf life

Two year from date of manufacture when stored in original packaging.

Storage conditions

Store in the original sealed container in a cool and dry place out of direct sunlight. Store below 40°C (104°F).

Packaging

25 kg fiber drums with two polyethylene inner bag or as per your request.

Further information

The tolerances are given in the product specification sheet. Further safety information is provided in our Material Safety Data Sheet.



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