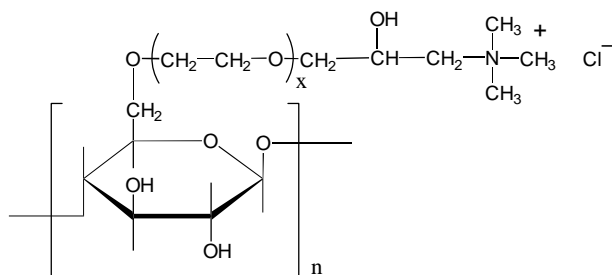


Conditioner P10

Conditioning agent



- Shaving creams and lotions
- Deodorants and antiperspirants

Hair-care

CONDITIONER P10 can be employed in hair-care thanks to its good substantivity to hair without build-up. When it is used in shampoos it confers conditioning properties improving wet and dry combability, sheen and body together with curl retention and hair setting. In hair styling products, cream rinses and conditioners, CONDITIONER P10 contributes to manageability without greasy feel. It can alleviate the potential damage on hair fibres caused by surfactants.

Skin-care

Toiletry products intended for the body as shower gels, liquid soaps and bath foams, and skin-care formulations as shaving lotions, deodorants, antiperspirants and creams can take advantage of the high degree of substantivity to keratin of CONDITIONER P10. Its substantivity to the skin leads to the formation of a protective film that leaves skin feeling smooth and silky.

Use

CONDITIONER P10 is a polymer readily dispersible and soluble in water at room temperature. Solutions can be easily prepared by dispersing it in water while maintaining good agitation. Both heat (40-70°C) and high shear will facilitate solubilisation. The required time to obtain the complete hydration of the polymer depends on the temperature and rate of stirring. CONDITIONER P10 is poorly soluble in ethanol and i-propanol. However, aqueous-alcoholic solutions can be easily prepared by first dissolving the polymer into water and adding the alcohol only when the polymer is completely solubilised. In detergent formulations based on anionic surfactants, the preparation of a pre-mix of water and polymer is recommended in order to avoid precipitation and any incompatibility. When the pre-mix is added to the surfactant mixture a cationic-anionic complex is formed and a slight cloudiness may appear. However continuing the agitation the excess of the surfactant mixture immediately solubilises the complex and the product clarity strongly improves. The compatibility with anionic and

Chemical and physical characteristics (*)

Chemical Name	Cellulose, 2-[2-Hydroxy-3-(Trimethylammonio)Propoxy] Ethyl Ether, Chloride
INCI NAME	Polyquaternium-10
No. CAS	81859-24-7, 68610-92-4
Appearance	White to beige powder
Loss on drying (%) (105°C)	6 max
Nitrogen assay (%)	1.5-2.2
pH (2% in water, 25°C)	5-6.5
Viscosity (2% in water, mPa·s) (Brookfield LV, Sp 2, 30 rpm, 25°C)	300-500

(*) Typical values not qualified for quality control purpose

Applications

CONDITIONER P10 is a free flowing powder that can be readily dissolved in water. It is a cationic derivative of hydroxyethyl cellulose that shows very good compatibility with a wide variety of both anionic and amphoteric surfactants. Because of its cationic nature, CONDITIONER P10 is substantive to protein substrates. This makes it an excellent conditioning agent that can be used both in hair-care and skin-care products such as:

- Conditioning shampoos
- Post-shampoo rinse conditioners
- Detangling spritzes
- Styling gels
- Hair dyeing products
- Shower gels and bath foams
- Liquid soaps

The information contained in this data sheet is based on our present and best knowledge. However we make no warranty, whether expressed or implied, including warranties of merchantability or of fitness for a particular use or purpose. Consequently the product must be tested by the user according to his needs and his production and application conditions and purposes. Neither do we assume any responsibility for infringement of third parties patent rights which may arise from the use of the product. For industrial use only.



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anphoteric surfactants is maintained over a wide range of pH but it is recommended to test it case by case.

Aqueous solutions of CONDITIONER P10 are sensitive to bacteria and fungi attack, therefore the addition of a suitable preservative system is advisable.

The dosage of CONDITIONER P10 depends on the intended use; general inclusion level is 0,1-0,8 % by weight.

Toxicological information

LD ₅₀ (oral, rat)	> 10000 mg/kg
LD ₅₀ (dermal, rabbit)	> 4000 mg/kg
Inhalation	Not a hazard under normal handling conditions
Ames test (gene mutation)	negative
Acute skin irritation (rabbit)	slightly irritant
Acute eye irritation (rabbit)	slightly irritant

Transport, storage and handling

Labelling: product not classified as hazardous according to international transport regulations.

Avoid contact with skin, eyes and mucous membranes. In case of contact, wash immediately with plenty of water. Store in the original closed containers at room temperature (5-40°C). Protect from moisture. Use suitable respiratory protection to avoid dust inhalation.

For further information please refer to safety data sheet



Cosmetic Division

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