

## Technical Bulletin

## Amylomer™ Care 25 (Starch Hydroxypropyltrimonium Chloride)

## Derived natural biodegradable hair and skin conditioning agent

## Description of the product

Derived natural biodegradable hair and skin conditioning agent. It is derived from vegetable polysaccharides from food grade quality starch and biodegradable. Improves combability and manageability of hair without loss of volume. Creates a natural, soft and well-conditioned hair feel. Can be used for **mid and strong hair and skin and body shampoos**.

## INCI

Aqua; Starch Hydroxypropyltrimonium Chloride; Urea; Sodium Lactate; Lactic Acid; Sodium Chloride; Sodium Benzoate

## Chemical and physical properties

Appearance	Clear to slightly hazy
Molecular Weight	~ 1800 kDa
Dry content	30% ± 0,5%
Viscosity 20°C, Brookfield	400-800 mPas (Sp2,60U/min)
pH-value DIN 19268	~ 3,5 – 4,1
Cationic D.S.	~ 0,25

## Intended use

Conditioning, antistatic, emulsion stabilising, viscosity controlling, foaming agent for hair and skin für ecofriendly hair and body shampoos.

## Advantages

- Substantive to hair and skin
- Improves combability and feel of wet and dry hair
- Reduction of hair porosity
- Soft and silky feel even at the end of very dry hair
- Easy to use due to its liquid form
- Readily biodegradability
- Low aquatox

## Properties

Amylomer™ Care25 is a liquid potato starch-based conditioner with readily biodegradability and low aqua toxicity. It improves conditioning properties like wet and dry comb and wet and dry feel, without weighing down the dry hair. It improves the foaming quality. It is an environment-friendly alternative for conditioning and shampoos.

**Combing force in wet hair**  
Comparison Amylomer Starch Product Care25 with synthetic products and Guar.

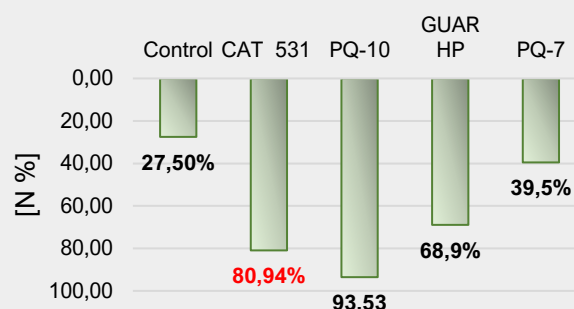


Abb. 1: Combing force result in wet hair  
European bleached hair, basis test formulation: 9% SLES/ 3% CAPB/ Preservative/ 0,4% active cationic polymer

## Application

Amylomer™ Care25 is used as a conditioning agent for hair and skin in:

- Shampoos
- Conditioner
- Body washes
- Liquid soaps
- Cleansing

## Suggested Concentration

- 0,5-2% Amylomer™ Care25
- Contains about 3,5% electrolytes (sodium chloride, lactic acid)

## Formulation Tips

Content of sodium chloride increases the viscosity of anionic detergents. Amylomer™ can be added at any production step, but preferably it should be integrated into the concentrated surfactant solution or after the mixed detergent at pH 6 or lower.

For production of detergent-based products we recommend to add Amylomer™ products after the mixed detergent at pH 6 or lower.

Product should be stirred before use.

**Packing- Storage-**

Store at temperatures between 5°C-25°C in original closed package  
Amylomer™ Care25 is available in 22kg pails, 210 kg plastic drums and IBC's.

**Hazardous goods classification**

Information concerning

- classification and labelling according to
- regulations for transport of chemicals
- protective measures for storage and handling
- measures in case of accidents and fire
- ecotoxicologica and biodegradability

is given in our safety and technical data sheets

**Guidline formulations****Conventional shampoo for European hair**

INCI	% w/w
Aqua	57.51 %
Sodium Laureth Sulfate, 27%	28.00%
Cocamidopropyl Betaine	11.00%
Sodium Benzoate	0.30%
Potassium Sorbate	0.20%
Starch Hydroxypropyltrimonium Chloride	1.50%
Citric Acid	0.49%

Preparation:

Blend ingredients in the given order.  
Adjust pH-value with citric acid to pH 4.3-4,7.  
Remarks: Viscosity (Haake, 20°C, RV4, 10 rpm): 3600 - 6300 mPas.

**Natural shampoo for European hair**

INCI	% w/w
Aqua	58.50%
Coco-Glucoside	23.00%
Sodium Coco Sulfate	8.00%
Cocamidopropyl Betaine	6.00%
Sodium Benzoate	0.30%
Potassium Sorbate	0.20%
Starch Hydroxypropyltrimonium Chloride	1.50%
Citric Acid	1.50%

Preparation:

Blend ingredients in the given order.  
Adjust pH-value with citric acid to pH 4.3-4,7.  
Remarks: Viscosity (Haake, 20°C, RV5, 10 rpm): 11000-26000 mPas.

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