Technical Bulletin

# Amylomer™ H-Care 05 (Starch Hydroxypropyl PG-Trimonium 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-conditioned hair with and good hold. It is a product which is very low quaternized.

### INCI

Aqua; Starch Hydroxypropyl Oxidized Starch PG Trimonium Chloride; Sodium Lactate, Lactic Acid, Sodium Chloride; Sodium Benzoate

### Chemical and physical properties

| | |
|---|---|
| Appearance | Yellowish, light opaque |
| Molecular weight | ~ 1000 kDa |
| Dry content | 38,7% ± 1% |
| Viscosity 20°C, Brookfield | 350-550 mPas (Sp3,60U/min) |
| pH-valure DIN 19268 | ~ 3,5 – 4,1 |
| Cationic D.S. | ~ 0,05 |

### 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™ H-Care005 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.

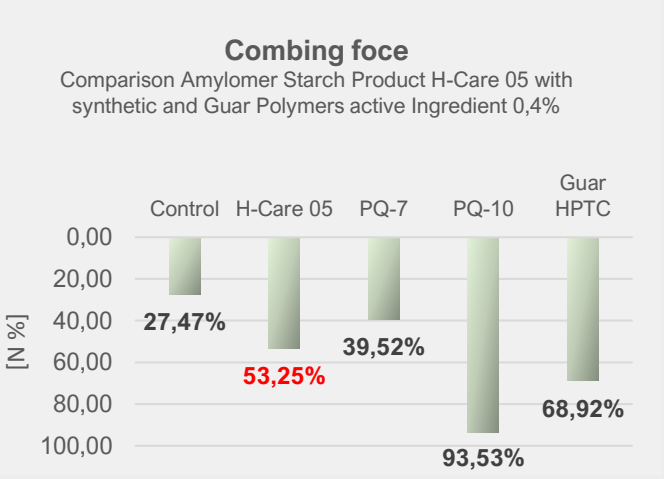


Abb. 1: Combing force results in wet hair

European bleached hair, basis test formulation: 9% SLES/ 3% CAPB/ Preservative/ 0,4% active cationic polymer

### Application

Amylomer™ H-Care005 is used as a conditioning agent for hair and skin in:

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

### Suggested Concentration

- 0,5-2% Amylomer™ H-Care005
- 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™ H-Care005 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 | 28.00% |
| Cocamidopropyl Betaine | 11.00% |
| Sodium Benzoate | 0.30% |
| Potassium Sorbate | 0.20% |
| Starch Hydroxypropyl PG-Trimonium 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 Hydroxypropyl PG-Trimonium 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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