

Technical Bulletin

Amylomer™ CAT 531 (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 hair and skin for eco-friendly hair 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	~ 1400 – 2200 kDa
Dry content	32% ± 1%
Gardner colour	< 2
Viscosity 20°C, Brookfield	150-500 mPas (Sp2,60U/min)
pH-value DIN 19268	~ 3,5 – 4,1
Cationic D.S.	~ 0,5

Intended use

Conditioning, antistatic, emulsion stabilising, viscosity controlling 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
- Easy to use due to its liquid form
- Readily biodegradable: OECD 301 (28 days) 64.26%
- Low aquatox (Daphna): 53 mg/L (OECD 202)

Properties

Amylomer™ CAT 531 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 is an environment-friendly alternative for conditioning and shampoos.

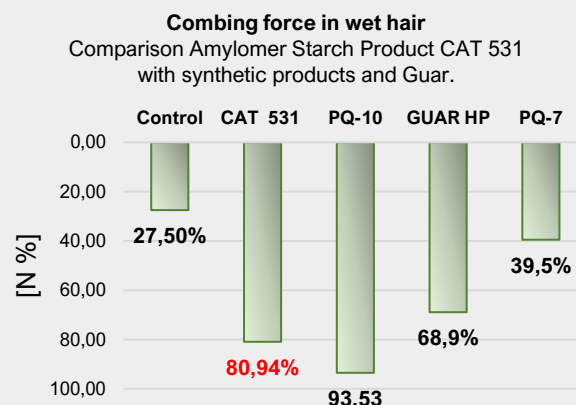


Abb. 1: Combing force result

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

Application

Amylomer™ CAT 531 is used as a conditioning agent for hair and skin in:

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

Suggested Concentration

- 0,5-2% Amylomer™ CAT 531
- Contains about 3,5% electrolytes (sodium chloride, lactic acid)

Formulation Tips

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

Product should be stirred before use

Packing- Storage-

Store at temperatures between 5°C-25°C in original closed package

Amylomer™ CAT 531 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%	28.0%
Cocamidopropyl Betaine	11.0%
Sodium Benzoate	0.3%
Potassium Sorbate	0.2%
Starch Hydroxypropyltrimonium Chloride	1.5%
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	8.0%
Cocamidopropyl Betaine	6.0%
Sodium Benzoate	0.3%
Potassium Sorbate	0.2%
Starch Hydroxypropyltrimonium Chloride	1.5%
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.

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could be used

Gräfe Chemie GmbH

Deichstraße 48-50

20459 Hamburg, Germany

Phone: +49 (0) 40 7602638

info@graefe-naturchemie.de

www.Graefe-Chemie.de