

Technical Information

ANTIL® 171

Highly effective liquid thickening agent for shampoos, shower and bath preparations

Intended use

Rheological additive

Benefits at a glance

- Liquid, low viscous
- Easy to handle (cold processable, pumpable)
- May be incorporated directly in each stadium of the production process
- Highly effective
- Pleasant rheological behaviour of final products

INCI (PCPC Name)

PEG-18 Glyceryl Oleate/Cocoate

Chemical and physical properties (not part of specifications)

Form	Liquid, low viscous
Appearance	Clear/slightly opalescent

Properties

ANTIL® 171 is especially suitable for the preparation of e. g. shampoos, shower and bath preparations in a cold process, where it is necessary to use liquid thickening agents, which are easy to bring into the production process at any time, even into the final formulation.

Effective thickening properties combined with optimal processability make ANTIL® 171 a universal thickening agent. Furthermore, a pleasant refatting effect can be achieved by using ANTIL® 171.

Cosmetic formulations, which are thickened by ANTIL® 171, show a nearly newtonean (ideal viscous) flow behaviour contrary to NaCl, which leads to an extremely strong shear thinning behaviour.

Figure 1 shows the viscosity of an aqueous solution of 10% TEGO® Betain F 50 (3.75% a.m.) and 11.25% SLES in correlation to the amount of thickening agent ANTIL® 171 or NaCl. The graph of ANTIL® 171 shows no gel phase. This is an explanation for the good processability of ANTIL® 171.

In contrast to solutions of surfactants, which are thickened exclusively by NaCl, ANTIL® 171 leads to less irritations of skin and mucous membranes. Furthermore pleasant (ideal viscous) flow properties can be achieved.

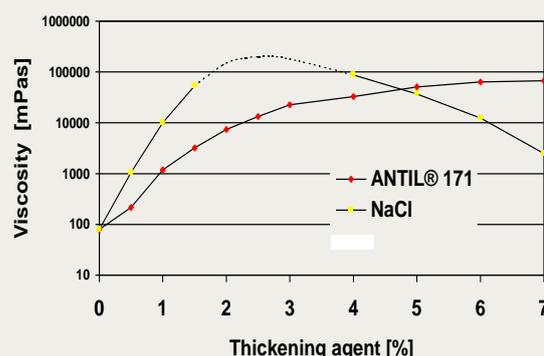


Figure 1: Thickening effect in SLES/CAPB

ANTIL® 171 is suitable for thickening of all ordinary surfactant systems, especially for mixtures, which contain alkyl ether sulphate.

Because of its character as a surface active agent, ANTIL® 171 shows solubilizing properties. As a consequence the solubilization effect of the surfactants is improved, larger amounts of perfume or etheric oils may be solubilized without any turbidity.

Application

ANTIL® 171 is processable at room temperature. Its low viscosity is important, especially for processing in a continuous production facility.

ANTIL® 171 is applicable at any phase of the production process, even into the final formulation with WAS > 5%. Because of the low viscosity and good solubility of ANTIL® 171, special technical equipment is not necessary.

Storage/Preparation

At storage temperatures of app. 15°C and below ANTIL® 171 can show turbidities resp. separations. In this case it has to be warmed up to app. 30 – 40°C and stirred for homogenization.

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
- toxicological and ecotoxicological effects

is given in our safety data sheets.

Guideline formulations

Clear conditioning shampoo for damaged, fine hair (MAC 387/1/1)

Sodium Laureth Sulfate, 28%	28.00%
ABIL® Soft AF 100 (Methoxy PEG/PPG-7/3 Aminopropyl Dimethicone)	0.40%
Perfume	0.50%
Water	57.10%
TEGO® Cosmo C 100 (Creatine)	1.00%
TEGO® Betain F 50 (Cocamidopropyl Betaine)	11.00%
ANTIL® 171	2.00%
Sodium Chloride, Preservatives	q.s.

Preparation

Mix the ingredients in the given order.

Microbiological safety: challenge test not performed

Liquid soap (UM 241/2)

Sodium Laureth Sulfate, 28%	25.00%
Perfume	0.50%
TEGOSOFT® GC (PEG-7 Glyceryl Cocoate)	0.5%
TEGO® Betain F 50 (Cocamidopropyl Betaine)	8.00%
TEGO® Pearl N 100 (Glycol Distearate; Steareth-4)	3.00%
ANTIL® 171	2.50%
NaCl, Preservatives	q.s.

Preparation

Mix the ingredients in the given order.

Microbiological safety: challenge test not performed

Clear conditioning shampoo with Ceramide VI (MAC 372/2/9)

VARISOFT® PATC (Palmidamidopropyl-trimonium Chloride)	2.00%
Ceramide VI (Ceramide 6 II)	0.05%
Parfum	0.50%
Sodium Laureth Sulfate, 28%	30.00%
Water	55.95%
ABIL® Quat 3272 (Quaternium-80)	0.50%
TEGO® Betain F 50 (Cocamidopropyl Betaine)	10.00%
ANTIL®171	1.00%
Sodium Chloride, Preservatives	q.s.

Preparation

Heat the VARISOFT® PATC and the Ceramide VI to 85 °C. The Ceramide must be melted. Add the other ingredients slowly step by step in the given order and keep the temperature at 80 – 85 °C. Once the formulation is homogeneous and clear, cool down to 30 °C.

Microbiological safety: challenge test not performed

Mild Shower Bath (SG 771/35)

Sodium Laureth Sulfate, 28%	30.00%
VARISOFT® PATC (Palmidamidopropyl-trimonium Chloride)	1.00%
Water	47.00%
Citric Acid Monohydrate	0.30%
REWOTERIC® AM C (Sodium Cocoamphoacetate)	5.00%
TEGO® Betain 810 (Capryl/Capramidopropyl Betaine)	12.00%
ANTIL®171	2.70%
TEGO® Pearl N 300 (Glycol Distearate; Laureth-4; Cocamidopropyl Betaine)	2.00%
Preservatives, Parfum	q.s.

Preparation

Mix the ingredients in the given order.

Microbiological safety: challenge test not performed

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