

ANTIL[®] 171

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

- 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

Personal Care

INCI Name (CTFA 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 modern 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.

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.

Packaging

800 kg pallet (4 x 200 kg drum)

Hazardous goods classification

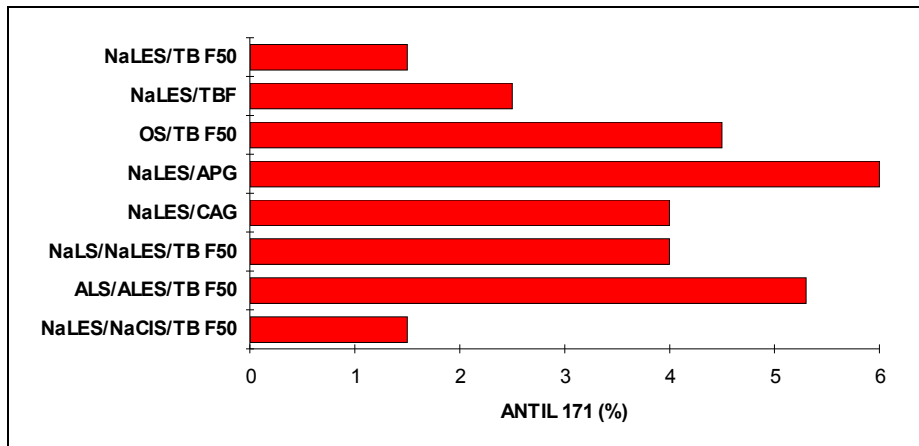
Information concerning

- classification and labelling according to regulations for transport and for dangerous substances
- protective measures for storage and handling
- measures in accidents and fires
- toxicity and ecological effects

is given in our material safety data sheets.

Figure 1 shows the amount of ANTIL® 171 necessary to thicken several surfactant systems to a viscosity of app. 4 000 mPas.
 All solutions contain 15 % WAS in the following ratio: primary surfactant : secondary surfactants = 3 : 1 or 2 : 1 : 1.

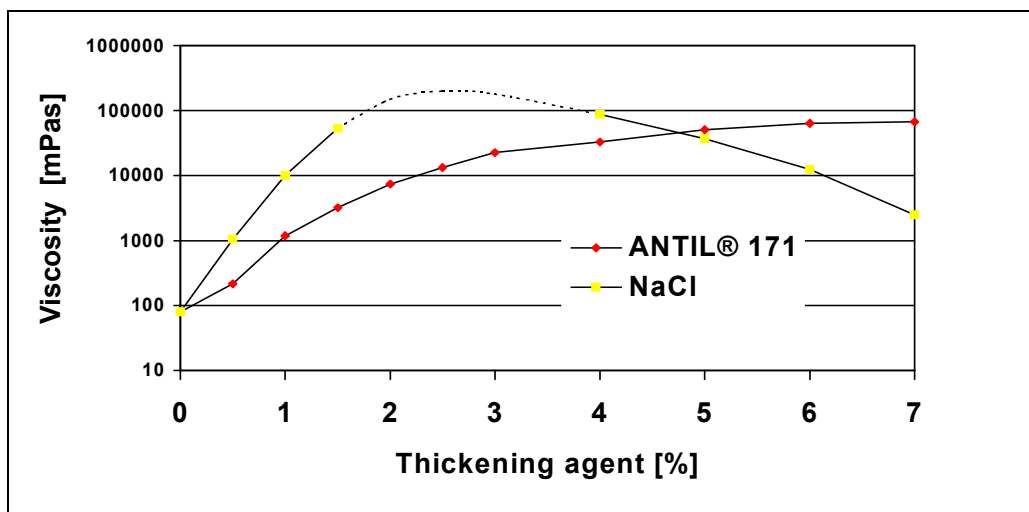
Figure 1:



NaLES = Sodium lauryl ether sulfate; TB F50 = TEGO Betain F50; TB F = TEGO® Betain F; OS= C14–16 olefine sulfonate; APG = Lauryl polyglucose; CAG = Coco amphoglycinate; NaLS = Sodium lauryl sulfate; ALS = Ammonium lauryl sulfate; ALES = Ammonium lauryl ether sulfate; NaCIS = Sodium cocoyl isethionate

Figure 2 shows the viscosity of an aqueous solution of 10 % TEGO® Betain F 50 (3.75 % WAS) and 11.25 % NaLES 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 2:



Guide Line Formulations

Clear conditioning shampoo for damaged, fine hair MAC 387/1/1	
Sodium Laureth Sulfate, 28 %	28.0 %
ABIL® Soft AF 100 (Methoxy PEG/PPG-7/3 Aminopropyl Dimethicone)	0.4 %
Perfume	0.5 %
Water	57.1 %
TEGO® Cosmo C 100 (Creatine)	1.0 %
TEGO® Betain F50 (Cocamidopropyl Betaine)	11.0 %
ANTIL®171	2.0 %
Sodium Chloride, Preservatives	q.s.
Preparation: Mix the ingredients in the given order.	

Clear conditioning shampoo with Ceramide VI MAC 372/2/9	
VARISOFT® PATC (Palmidamidopropyltrimonium Chloride)	2.00 %
Ceramide VI (Ceramide AP)	0.05 %
Parfum	0.50 %
Sodium Laureth Sulfate, 28 %	30.00 %
Water	55.95 %
ABIL® Quat 3272 (Quaternium-80)	0.50 %
TEGO® Betain F50 (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.	

Mild Shower Bath SG 771/35	
Sodium Laureth Sulfate, 28 %	30.00 %
VARISOFT® PATC (Palmidamidopropyltrimonium 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.	

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.	

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