

ANTIL® 120 Plus / ANTIL® 127

Very effective thickening agents

Intended use

Rheological additives

Benefits at a glance

- excellent thickening properties
- water soluble
- can be processed hot or cold in every production step
- stable over a wide pH range (4.5 – 9.0)
- reduce the irritation potential of surfactants
- preservative-free

INCI (PCPC name)

PEG-120 Methyl Glucose Dioleate

Chemical and physical properties (not part of specifications)	ANTIL® 120 Plus	ANTIL® 127
Form	solid, pellets	liquid, highly viscous
Active matter	> 99%	> 50%

Properties

ANTIL® 120 Plus and ANTIL® 127 are very efficient, sugar-based thickening agents for aqueous surfactant systems. They are suitable for many formulations, e.g. hair shampoo, shower gel, foam bath, liquid soap or hand wash paste.

ANTIL® 120 Plus and ANTIL® 127 are stable against hydrolysis. They allow the production of surfactant

formulations over a wide pH range and show a good efficiency even if combined with surfactants which are difficult to thicken (e.g. sulfosuccinates). ANTIL® 120 Plus and ANTIL® 127 are capable of reducing the irritation potential of surfactants and improving the mildness of formulations. Both products mostly show a synergistic effect when combined with non-ionic surfactants with a low molecular weight, e.g. with ethoxylated fatty alcohols, fatty acid polyethylene glycol esters, ethoxylated fatty acids and fatty acid esters of glycol, glycerol or polyglycerol.

Application

ANTIL® 120 Plus and ANTIL® 127 are non-ionic. They can be used with common anionic, cationic, amphoteric or non-ionic surfactants.

Using mainly ANTIL® 120 Plus or ANTIL® 127 surfactant formulations with a nearly ideal viscous rheology are achieved. Therefore, formulations are provided with a rich, gel-like appearance. The figure shows the amount of ANTIL® 120 Plus necessary to achieve a viscosity of approximately 3 500 mPas in several surfactant combinations.

The mixtures tested contain 15 % active matter in a ratio of primary anionic surfactant: secondary surfactant = 75 : 25.

Preparation

The liquid ANTIL® 127 and the pelletized ANTIL® 120 Plus are easy to handle and they are cold processable. Both products are soluble in water or

surfactant systems. Slight heating accelerates the production process. When using ANTIL® 120 Plus or ANTIL® 127 at the end of the production process for final adjustment of the viscosity, control measurements are not possible before the thickener is dissolved homogeneously.

Packaging

ANTIL® 120 Plus
450 kg pallet (18 x 25 kg box)

ANTIL® 127
880 kg pallet (4 x 220 kg drum)

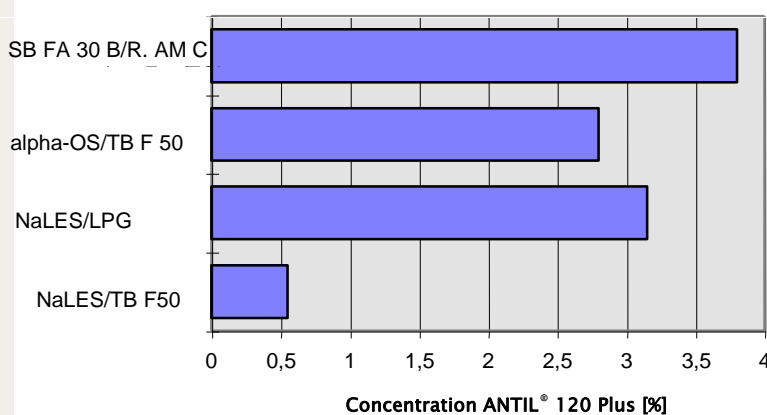
Hazardous goods classification

Information concerning

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

is given in our material safety data sheets.

Dosage of ANTIL® 120 Plus for a viscosity of 3500 mPas (15 % surfactant active matter, 3:1)



NaLES = Sodium Laureth Sulfate; TB F 50 = TEGO® Betain F 50 (Cocamidopropyl Betaine); LPG = Lauryl Polyglucoside; alpha-OS = C₁₄₋₁₆ Olefin Sulfonate; R. AM C = REWOTERIC® AM C (Sodium Cocoamphoacetate); SB FA 30 B = REWOPOL® SB FA 30 B (Disodium Laureth Sulfosuccinate)

Guideline formulations

Conditioning Shampoo ST-CS 1	
Water	48.5%
ABIL® Quat 3272 (Quaternium-80)	0.6%
Natriumlaurylethersulfat (28 %)	30.0%
REWOTERIC® AM C (Sodium Cocoamphoacetate)	30.0%
REWOPOL® SB CS 50 B (Disodium PEG-5 Laurylcitrate Sulfosuccinate; Sodium Laureth Sulfate)	6.0%
Citric Acid (30 %)	1.8%
ANTIL® 120 Plus / ANTIL® 127	0.2 / 0.3%
VARISOFT® PATC (Palmitamidopropyltrimonium Chloride)	2.5%
NaCl	0.4%
TEGO® Pearl N 300 (Glycol Distearate; Laureth-4; Cocamidopropyl Betaine)	2.0%
Preservatives	q.s.
Preparation: Mix the ingredients in the given order. Adjust the pH value with citric acid to approximately 5.5.	

Mild Shower Bath ST-SB 9	
TEGOSOFT® PC 31 (Polyglyceryl-3 Caprate)	1.00%
Sodium Laureth Sulfate (28%)	22.00%
REWOPOL® SB FA 30 B (Disodium Laureth Sulfosuccinate)	12.00%
Water	50.95%
Panthenol	0.50%
LACTIL® (Sodium Lactate; Sodium PCA; Glycine; Fructose; Urea; Niacinamide; Inositol; Sodium Benzoate; Lactic Acid)	1.00%
TEGO® Betain F 50 (Cocamidopropyl Betaine)	8.00%
VARISOFT® PATC (Palmitamidopropyltrimonium Chloride)	1.50%
ANTIL® 120 Plus / ANTIL® 127	0.25 / 0.36%
TEGO® Pearl N 300 (Glycol Distearate; Laureth-4; Cocamidopropyl Betaine)	2.00%
Preservatives	q.s.
Preparation: Mix the ingredients in the given order.	

Conditioning Shampoo UM 196/8	
Sodium Laureth Sulfate (28 %)	35.0%
Perfume	0.5%
Water	51.6%
ABIL® Quat 3272 (Quaternium-80)	0.6%
ABIL® B 8852 (PEG/PPG-4/12 Dimethicone)	0.6%
TEGO® Betain F 50 (Cocamidopropyl Betaine)	8.0%
ANTIL® 120 Plus / ANTIL® 127	0.25 / 0.36%
NaCl, preservatives	q.s.
Preparation: Mix the ingredients in the given order.	

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