

C-160

CONDITIONING SHAMPOO

NATURAL HAIR

GUIDELINE FORMULARY

DESCRIPTION

Shampoo for normal hair
Hair becomes easier to comb
Highly foaming
Very mild formulation

COMPOSITION

	%
EMAL® 270D ⁽¹⁾	8.6
BETADET® SHR	6.8
AKYPO® FOAM RL 40	4.7
DANOX® PL-10	4.0
AMIDET® APA-22	0.5
PEG-12 Dimethicone ⁽²⁾	0.5
Polyquaternium-10 ⁽³⁾	0.2
Ethyl Panthenol	0.2
D-Panthenol (50% solution)	0.2
KAO Fragrance	q.s.
Preservative ⁽⁴⁾	q.s.
Deionized Water	Up to 100

(1) 8.6% of EMAL® 270D (SLES at 70% a.m.) can be substituted by 22.2% of EMAL® 227E (SLES at 27% a.m.)

(2) XIAMETER® OFX-0193 FLUID from Dow Corning

(3) Ucare® Polymer LR-400 from Dow

(4) Isocil® PC from by Lonza

TECHNICAL CHARACTERISTICS

Kao Method

APPEARANCE (20°C):	White pearled viscous liquid	KCSA-258
pH (as it is):	Approx. 6.5	KCSA-014
VISCOSITY BROOKFIELD (20°C, cP):	Approx. 9,000	KCSA-227
STABILITY TEST:	Correct	(1 month 40°C/RT/5°C)

RECOMMENDED OPERATIVE METHOD

Charge 90% approx. of the water in the vessel and add Polyquaternium-10.

Add EMAL® 270D and AKYPO® FOAM RL 40. Stir after each addition until the mixture is completely homogenous.

In a separate vessel, charge 8% of Deionized Water, BETADET® SHR and AMIDET® APA-22. Heat up till 80°C. Once the mixture is clear add it to the previous mixture and stir until the product is clear. Add the rest of ingredients in the indicated order. Stir after each addition until the mixture is completely homogenous.

Add DANOX® PL-10, preservative (soluble) and perfume (15 minutes of agitation are usually needed to solubilize it).

Adjust pH (it is recommended to use diluted citric or lactic acid to decrease it or diluted sodium hydroxide to increase it if necessary).

Adjust viscosity with NaCl.

COMPONENTS

AKYPO® FOAM RL 40 (Sodium Laureth-5 Carboxylate, ≈ 60% a.m.): crypto-anionic character, it combines the properties of the anionic and non-ionic surfactants. Mild foam-booster for Personal Care products. Produces a rapid foam and improves the foam behaviour of cleansing products when used as co-surfactant.

AMIDET® APA-22 (Behenamidopropyl Dimethylamine, ≈ 100% a.m.): non-ionic character. High conditioning surfactant at acid pH, with substantive properties. It provides smoothness and anti-static effect to the hair. It also acts as a thickener in shampoo formulations.

BETADET® SHR (Cocamidopropyl Hydroxysultaine, ≈ 44% a.m.): amphoteric character. Very mild co-surfactant. It decreases the irritation level of anionic surfactants, improving the quality of the foam and performing also as a thickener.

DANOX® PL-10 (pearling concentrate, ≈ 52% dry matter): anionic and non-ionic character. Nitroso-amines free product (its composition doesn't contain any Nitrogen derivative). It allows modifying the final appearance of the formula, providing it with a beautiful pearled appearance. No heating is needed. Ecological product. Suggested dosage: 3 - 10%.

EMAL® 270D (Sodium Laureth Sulfate, ≈ 70% a.m.): anionic character. Primary surfactant, highly foaming. Good detergent properties.

The information and recommendations in this publication are to the best of our knowledge reliable. However, nothing herein is to be construed as a warranty or representation. Users should make their own tests to determine the applicability of such information or the suitability of any products for their own particular purpose.

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