

C-211

ANTI-DANDRUFF SHAMPOO

VERY MILD

GUIDELINE FORMULARY

DESCRIPTION

Shampoo that prevents dandruff formation
Relieves the scalp, soothes redness and eliminates dandruff
For frequent use
Leaves hair soft and clean
It contains natural EO free thickener

COMPOSITION

	%
EMAL® 270D ⁽¹⁾	14.0
AKYPO® FOAM RL 40	5.0
DANOX® PL-10	4.0
LEVENOL® H&B	2.5
EXCEPARL® LM-LC	1.5
TETRANYL® U	0.5
Zinc Pyrithione ⁽²⁾	2.0
Dimethicone ⁽³⁾	0.5
Polyquaternium-10 ⁽⁴⁾	0.2
EDTA.Na4	0.2
Hydroxypropyl Guar & Hydroxypropyl TC ⁽⁵⁾	0.1
KAO Fragrance	q.s.
Dye(s)	q.s.
Preservative (Isothiazolinone type, 1.5% act)	q.s.
NaCl	q.s.
Deionized Water	Up to 100

(1) 14% of EMAL® 270D (SLES, 70%) can be replaced by 36,3% of EMAL® 227E (SLES, 27%)

(2) Zinc PYRION™ 48% MPF from Janssen PMP

(3) XIAMETER™ PMX-200 Silicone Fluid 350 cSt from Dow

(4) Ucare™ Polymer LR 400 from Dow

(5) Jaguar® C-162 from Solvay

TECHNICAL CHARACTERISTICS

Kao Method

APPEARANCE (20°C):	Blue pearled viscous gel	KCSA-258
pH (as it is):	6.0 - 7.0	KCSA-014
VISCOSITY BROOKFIELD (20°C, cP):	Approx. 17,000	KCSA-227
STABILITY TEST:	Correct	(1 month 40°C/RT/5°C)

RECOMMENDED OPERATIVE METHOD

Add EDTA.Na4 to the water, Polyquaternium-10 and Hydroxypropyl Guar & Hydroxypropyl TC. Stir well after each addition until a homogeneous dispersion is obtained.

Add AKYPO® FOAM RL 40, EMAL® 270D, LEVENOL® H&B and EXCEPARL® LM-LC stirring after each addition until total homogeneity.

Add Silicone (Dimethicone), TETRANYL® U, Zinc Pyrithione and DANOX® PL-10. Stir well after each addition until a homogeneous mixture is obtained.

Add the other additives: preservative (soluble), fragrance (15 minutes of agitation are usually needed to solubilize it), dyes (diluted in water) and other (extracts, etc.).

Adjust pH (it is recommended to use citric acid to reduce it and TEA if an increase is necessary) and final desired viscosity using sodium chloride.

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.

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.

EXCEPARL® LM-LC (Lauryl Lactate, ≈ 100% a.m.): non-ionic character. Liquid ingredient derived from renewable sources. Thickener for cleansing compositions. It can be added at room temperature. Recommended dosage for rinse-off formulations, between 0.3 and 3%. For skin care application, it performs as skin emollient with high/medium spreadability and low oiliness. Recommended use percentage for skin care is 10% max. Excellent solubilizing properties for UV-filters.

LEVENOL® H&B (Glycereth-2 Cocoate, ≈ 100% a.m.): non-ionic character. Extra-mild surfactant, with emulsifying properties. Skin emollient and moisturizing agent. Foam booster and thickening agent. Ecological product. It doesn't need any risk or safety warnings on its label. In hair rinse application increases the conditioning effect of the cationic component, giving smoothness. % of use in Hair Rinse = between 0.1 - 2%.

TETRANYL® U (Undecylenamidopropyltrimonium Methosulfate, ≈ 50% a.m.): cationic character. Main functions Antimicrobial, Antistatic and Conditioning. Water soluble at room temperature. Compatible with other surfactants.

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