

# C-243

# CONDITIONING SHAMPOO

## SILICONE FREE

### GUIDELINE FORMULARY

#### DESCRIPTION

Repairing shampoo  
Silicone free formula

#### COMPOSITION

	%
EMAL® 270D	18.6
AMIDET® N	1.0
BETADET® S-20	3.0
BETADET® THC-2	1.6
KAO SOFCARE® GP-1	0.8
SOFCARE® KG-101E	0.8
DANOX® PL-10	4.0
KAO Fragrance	q.s.
Preservative	q.s.
Sodium Chloride	q.s.
Citric Acid (10% solution)	q.s.
Deionized Water	Up to 100

(1) 18.6% of EMAL® 270D (SLES at 70% a.m.) can be substituted by 48.2% of EMAL® 227E (SLES at 27% a.m.).

#### TECHNICAL CHARACTERISTICS

#### Kao Method

APPEARANCE (20°C):	White pearled gel	KCSA-258
pH (as it is):	Approx. 5.5	KCSA-014
VISCOSITY BROOKFIELD (20°C, cP):	Approx. 5,500	KCSA-227
STABILITY TEST:	Correct	(1 months 40°C/RT/5°C)

## RECOMMENDED OPERATIVE METHOD

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Heat the water up to 70°C and add the following ingredients: BETADET® S-20, BETADET® THC-2 and SOFCARE® KG-101E and then stir until complete homogenization.

Cool down the temperature until 40-35°C.

Add each one of the remaining ingredients, EMAL® 270D, AMIDET® N, KAO® SOFCARE GP-1 and DANOX® PL-10 and stir until complete homogenization after each addition.

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

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

## COMPONENTS

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**AMIDET® N** (PEG-4 Rapeseedamide, ≈ 95% a.m.): non-ionic character. Nitroso-amines free thickener. It increases the foam volume and improves the quality of it. It reduces the irritation potential of the anionic surfactants on the skin. Multi-functional agent.

**BETADET® S-20** (Lauryl Hydroxysultaine, ≈ 38% 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. It improves the stability of the formula at extreme pH's and low temperature.

**BETADET® THC-2** (Disodium Cocoamphodiacetate, ≈ 40% a.m.): amphoteric character. Very mild co-surfactant. It decreases the irritation level of the anionic surfactants on the skin, improving volume and quality of the foam. Additional thickening affect.

**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.

temperature. Multi-functional conditioning agent that imparts similar characteristics to those of silicones, such as

**SOFCARE® KG-101E** (cross-linked quaternary copolymer, Polyquaternium-52, ≈ 40% cationic a.m.): cationic character. Provides a slippery feeling on hair during application and rinsing, leaving the hair smooth and detangled. Improves hair conditioning by reducing combing forces.

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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Ref. C15007-U-050814B

(Edited March 2014. Updated version July 2020)



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