

# C-288

# SHAMPOO

## ULTRA MILD

### GUIDELINE FORMULARY

#### DESCRIPTION

Sulfate-free shampoo  
Mild and high foaming  
Improves hair condition

#### COMPOSITION

	%
AKYPO® FOAM RL 40	25.0
BETADET® HR	14.7
KAOPAN® TW-IS399S	2.0
KAO SOFCARE® GP-1	0.6
Polyquaternium-37 <sup>(1)</sup>	5.0
Silicone Quaternium-16 <sup>(2)</sup>	2.4
KAO Fragrance	q.s.
Preservative <sup>(3)</sup>	0.5
Citric Acid (50% solution)	q.s.
Deionized Water	Up to 100

(1) Syntran® PC 5320 from Zschimmer & Schwarz

(2) Dowsil™ 5-7113 Silicone Quat Microemulsion from Dow Chemical

(3) Microcare® SB from Thor

#### TECHNICAL CHARACTERISTICS

#### Kao Method

APPEARANCE (20°C):	Yellowish clear viscous liquid	KCSA-258
pH (as it is):	5.0 - 5.5	KCSA-014
VISCOSITY BROOKFIELD (20°C, cP):	Approx. 7,000	KCSA-227
STABILITY TEST:	Correct	(1 month 40°C/RT/5°C)

## RECOMMENDED OPERATIVE METHOD

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Charge Deionized Water.

Add Polyquaternium-37, stirring until total homogeneity.

Add BETADET® HR, stirring until total homogeneity.

Add AKYPO® FOAM RL 40, stirring until total homogeneity.

Add KAO SOFCARE® GP-1, stirring until total homogeneity.

Add Silicone Quaternium-16 and KAOPAN® TW-IS399S. Stir after each addition until total homogeneity.

Add perfume and preservative. Stir after each addition until homogeneous.

Adjust pH to 5.0 - 5.5 with citric acid 50%.

## COMPONENTS

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**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.

**BETADET® HR** (Cocamidopropyl Betaine, ≈ 35% dry matter): amphoteric character. Secondary surfactant. It decreases the irritation level of the anionic surfactants on the skin, improving level and quality of the foam. Additional thickening affect.

**KAO SOFCARE® GP-1** (PPG-3 Caprylyl Ether, ≈ 100% a.m.): non-ionic character. Clear transparent liquid at room temperature. Multi-functional conditioning agent that imparts similar characteristics to those of silicones, such as feel and functionality. It improves foam generation and hair shine.

**KAOPAN® TW-IS399S** (PEG-160 Sorbitan Triisostearate, ≈ 75% a.m.): non-ionic character. Liquid thickener for any type of cleansing surfactant systems. Specially designed to increase viscosity of sulfate-free formulations. Processable at room temperature.

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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