# Clariant Surfactants: A versatile portfolio for sulfate-free, mild cleansing

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Industrial Consumer Specialties
Consumer Care
14.01.2016

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# Why “Sulfate-Free”?

Consumers relate Sodium (or Ammonium) Lauryl Sulfate and Sodium (or Ammonium) Laureth Sulfate to:

Cheap detergents

Harshness

Dryness

Color fade

Irritant

Allergy

Scalp damage

As a direct consequence, consumers relate sulfate-free products to:

Natural

Gentle

Color protection

Luxury

Health

Hydration

Care

Mild

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# Why Mild Surfactants?

Whether using a sulfate base or sulfate-free base, many consumer "negatives" and "positives" are related to surfactant mildness

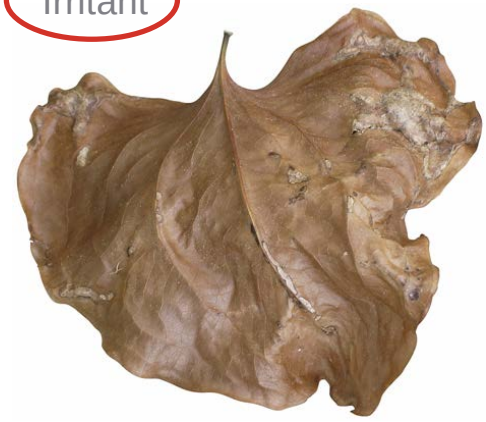
Cheap detergents

Harshness

Dryness

Color fade

Irritant



Allergy

Scalp damage

Natural

Gentle

Color protection

Luxury

Health

Hydration

Care

Mild

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# Range of Sulfate-free, Mild Surfactants for Every Application

– Primary or co-surfactants with exceptional performance

- Hostapon® SCI: S*odium Cocoyl Isethionate*
- Hostapon® SCB: *Coco-betaine (and) Sodium Cocoyl Isethionate*
- Hostapon® SG: *Sodium Cocoyl Glycinate*

– Co-surfactants with unique benefits

- Hostapon® CT Paste: *Sodium Methyl Cocoyl Taurate*
- Hostapon® CT Liq : *Sodium Methyl Cocoyl Taurate*
- Hostapon® CGN: *Sodium Cocoyl Glutamate*
- Emulsogen® LS-24 Gel: *Sodium Laureth-13 Carboxylate*

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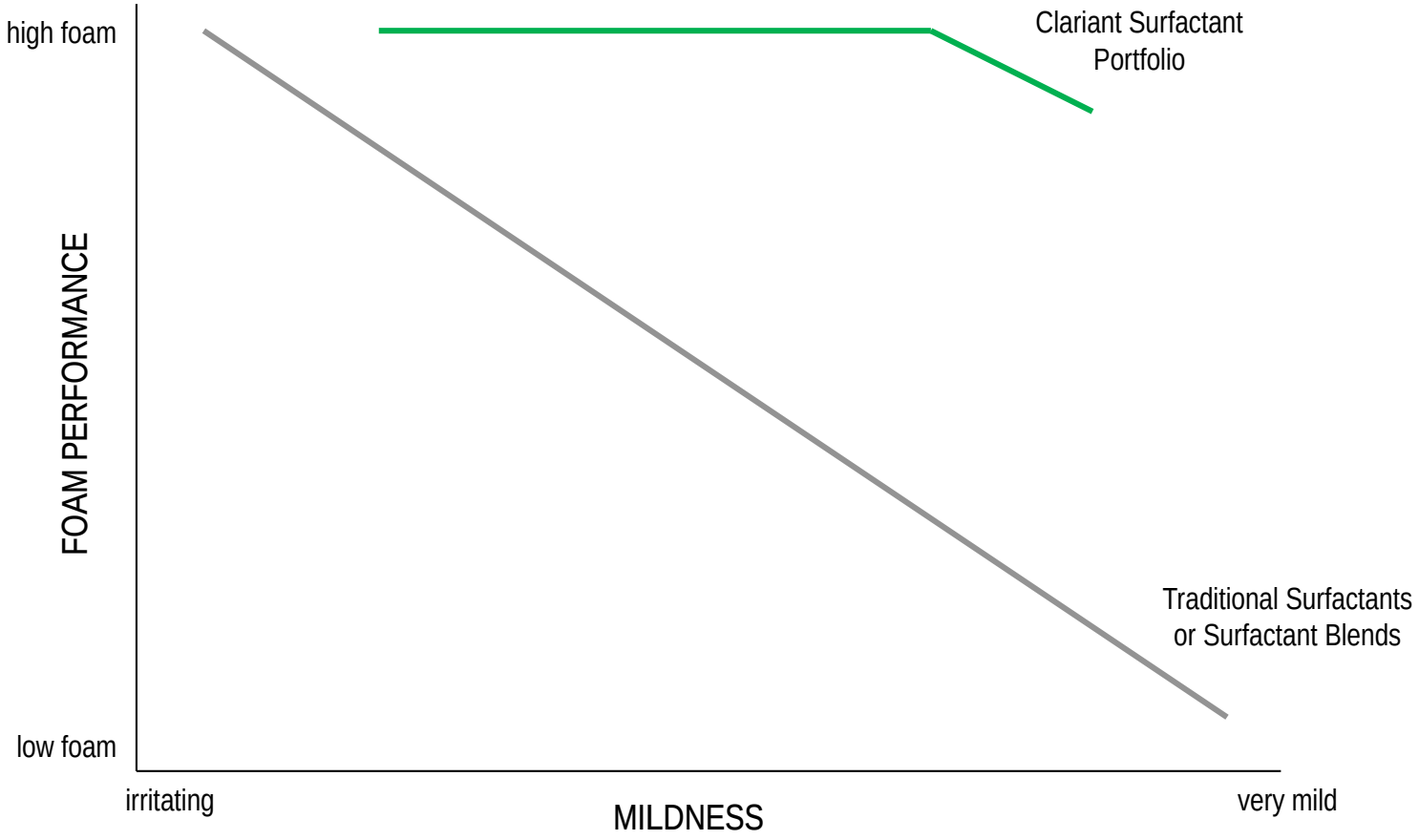
# Clariant Surfactants Break the Traditional Mildness – Performance Paradigm



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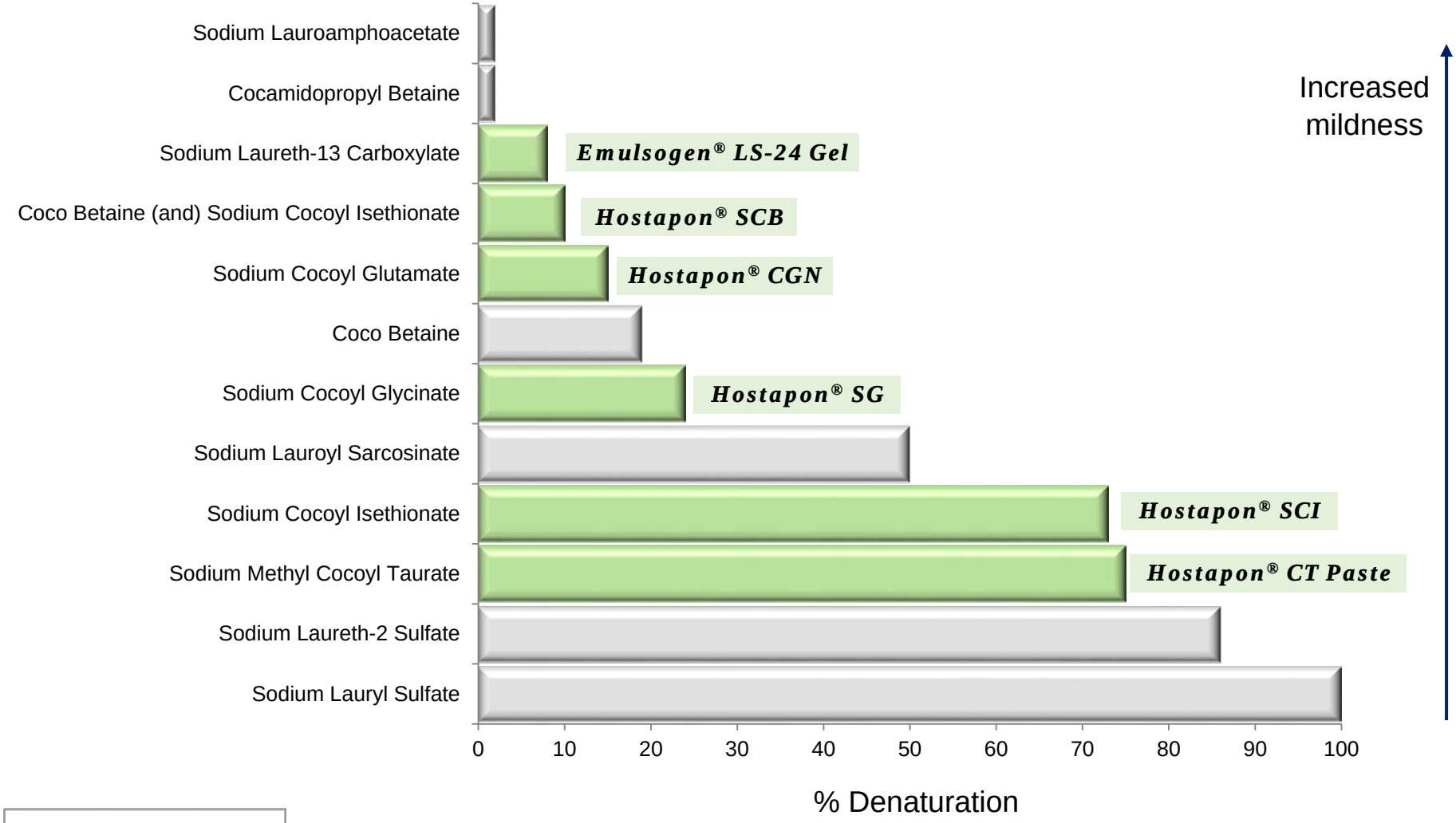
# Clariant Surfactants provide Enhanced Mildness




Red Blood Cell Test, pH 7-8

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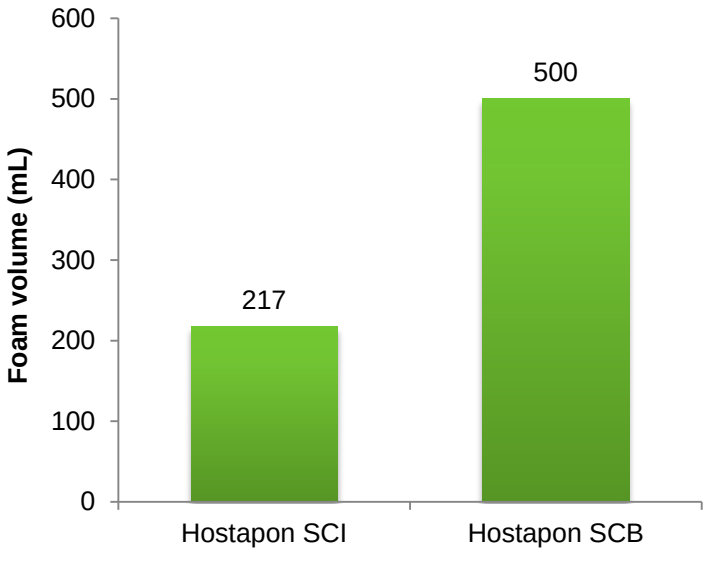
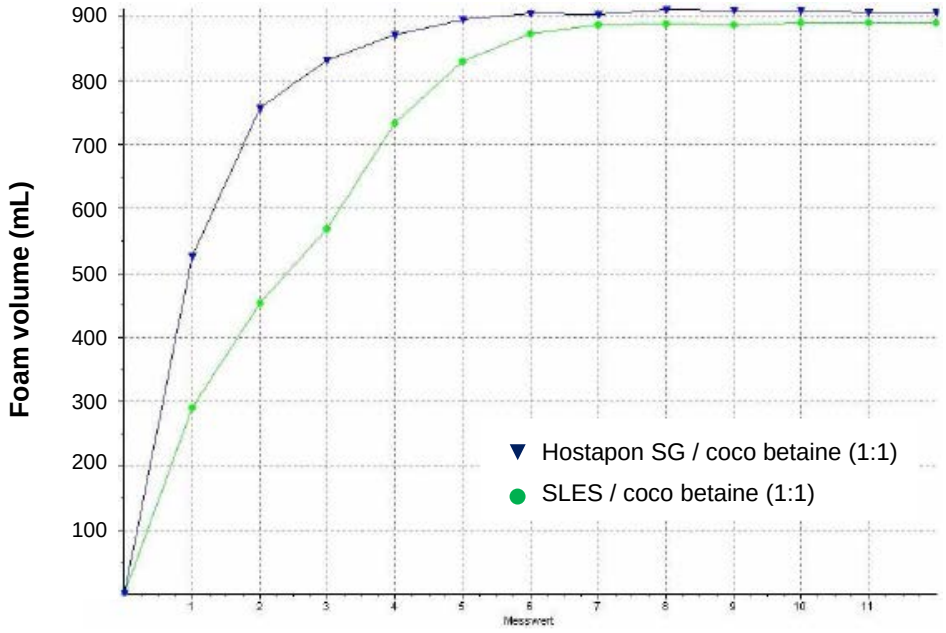
# Primary Sulfate-Free Surfactants provide High Foaming with Luxury Foam Textures

## Hostapon® SCI & Hostapon® SCB




Cylinder Shake Test (0.1% a.m. surfactant in DI water, 25°C, pH 7)

## Hostapon® SG




Sita Foam Test (1.0% a.m. surfactant in DI water, 37°C, pH 6)

# Topics of Interest

- Sulfate-free shampoos
- Sulfate-free cleansing bars
- High efficiency foam boosting
- Foaming in the presence of high oil loads
- Enhancing formulation mildness
- Improved rinsability
- Cold processability
- Formulation versatility from one surfactant

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# SULFATE-FREE SHAMPOOS

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# Hostapon® SG
# High Performance Sulfate-Free, Mild Shampoos

**Ultra Mild Shampoo** **BI 1169**

*Mild surfactant blend makes shampoo ideal for color retention and sensitive scalp claims*
*High performance for everyday use shampoos*

| | | |
|---|---|---|
| A | Octopirox® | 0.10 % |
| | *Piroctone Olamine* | |
| | Water | ad 100 % |
| B | Sorbitol | 1.00 % |
| C | **Hostapon® SG** | **30.00 %** |
| | ***Sodium Cocoyl Glycinate*** | |
| | Genagen® KB | 15.00 % |
| | *Coco-Betaine* | |
| | Coco Glucoside | 9.23 % |
| | Velsan® SC | 1.00 % |
| | *Sorbitan Caprylate* | |
| D | Citric Acid 25 % | approx. 3.25 % |
| E | Methylisothiazolinone | 0.02 % |

Procedure

I Add B to A and stir until the solution is clear

II Add C to I and stir until the solution is homogeneous

III Adjust the pH with D to 7.0 to 7.2

IV Heat to approx. 40 ° C und stir until the solution is clear, then cool to room temperature

V Add E to IV

Properties:

pH = 7.0

Viscosity: 4200 mPas
(Brookfield DV-I+, T-D, 20 rpm, 20ºC)
RBC: 11 % Denaturation

- Hostapon® SG is the primary surfactant
- Sulfate-free and ethoxylate-free claims
- Mildness supported by RBC evaluation

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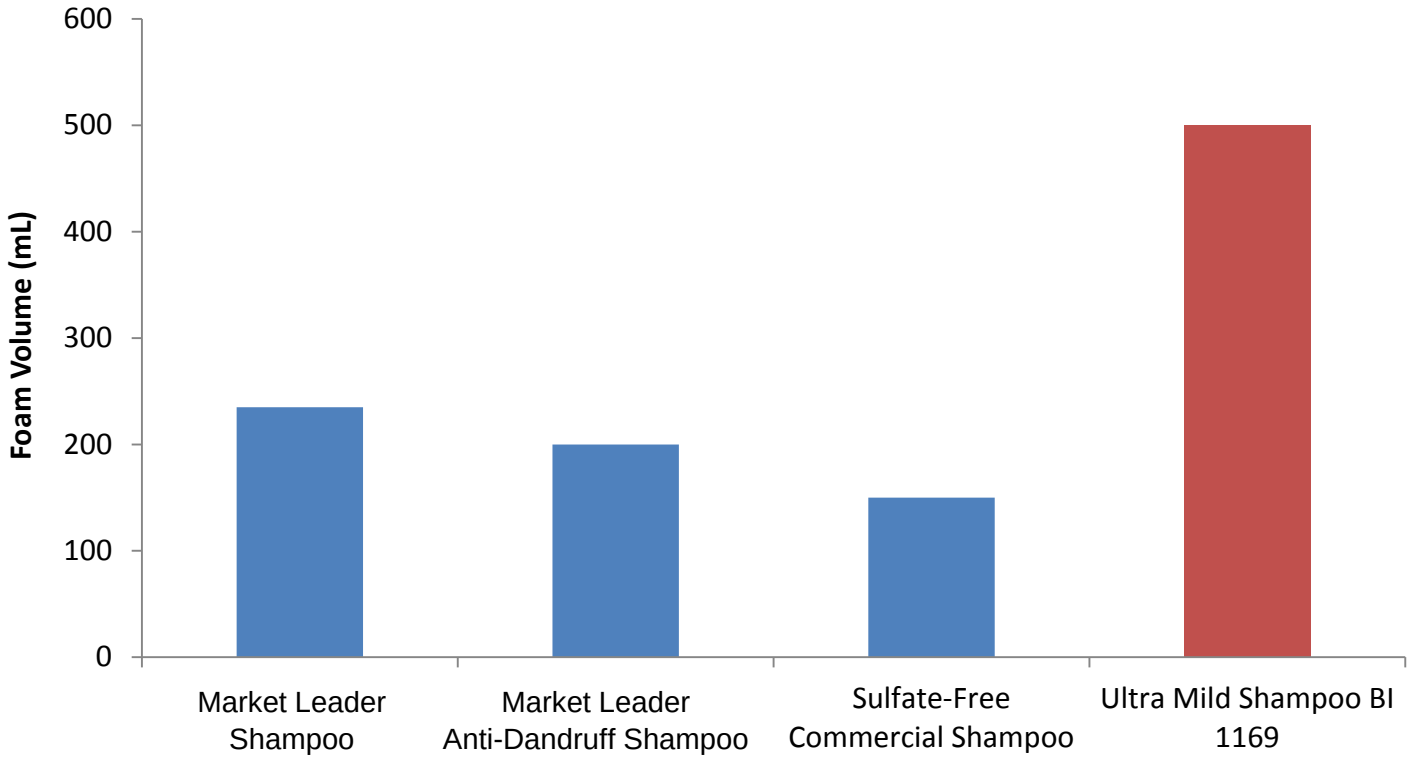
# Hostapon® SG
# Shampoo BI 1169 Foams better than Market Leaders




Cylinder Shake Test (0.1% shampoo in DI water, 22°C)

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# Hostapon® SG / Hostapon® SCI Sulfate-Free Shampoo Consumer Home Use Test

- Everyday Use Shampoo – no “white card” statement
- Usage: Every shampoo occasion for one week, at least 4 times in one week
- Friends & Family design
- 22 panelists finished study; ages 22-60

- Hostapon SG is primary surfactant
- Hostapon SCI 85C provides a foam boost and a creamy foam

| | Everyday Use Shampoo<br>*High performance for everyday use shampoos* | 7-SM-75 |
|---|---|---|
| A | Water | 10.00 % |
| | Sorbitol | 1.00 % |
| B | **Hostapon® SG (Clariant)** | **15.00 %** |
| | ***Sodium Cocoyl Glycinate*** | |
| | **Hostapon® SCI 85C (Clariant)** | **4.40 %** |
| | ***Sodium Cocoyl Isethionate*** | |
| | Genapol® EGDS | 1.50 % |
| | *Glycol Distearate* | |
| C | Water | ad 100 % |
| | Kathon CG | 0.10 % |
| D | Genagen® KB (Clariant) | 15.00 % |
| | *Coco-Betaine* | |
| | Coco Glucoside | 9.23 % |
| | Velsan® SC (Clariant) | 1.00 % |
| | *Sorbitan Caprylate* | |
| E | Polyquaternium-10 | 0.35 % |
| | Fragrance | 0.50 % |
| F | Citric Acid | q.s. |

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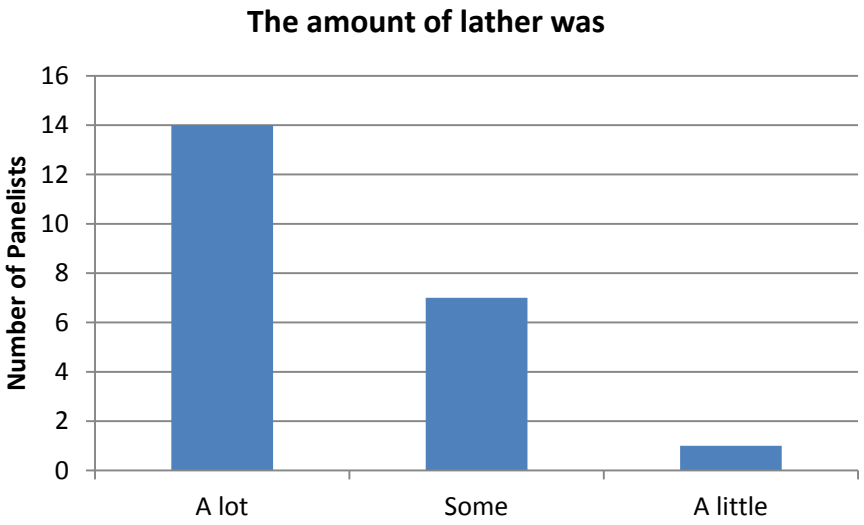
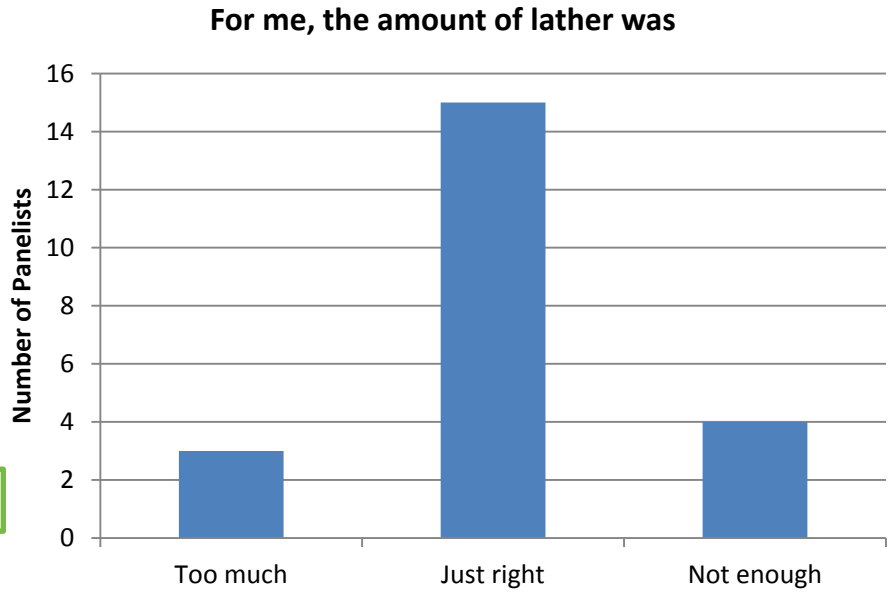
# Sulfate-Free Shampoo 7-SM-75
# Consumer Home Use Test: Lather Amount




*Sulfate-free Shampoo 7-SM-75 delivers a high foam amount*

Amount of lather was "A lot" for n = 14

Amount of lather was "Some" for n = 7




Amount of lather was "Just right" for n = 15

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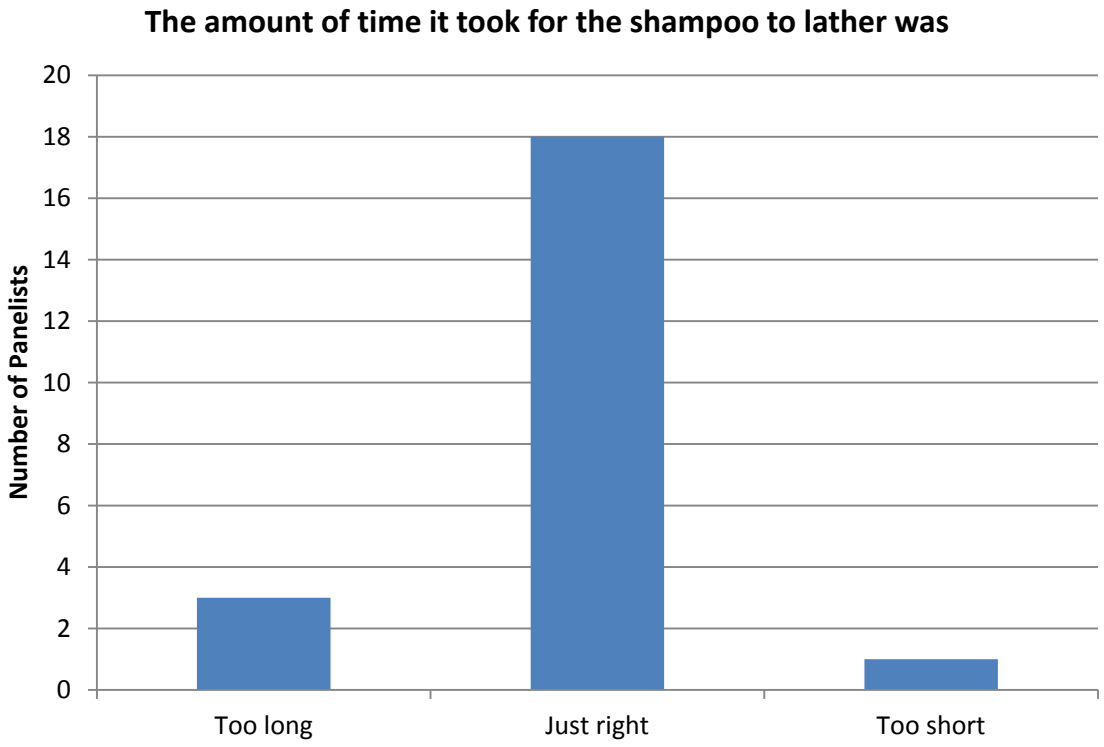
# Sulfate-Free Shampoo 7-SM-75 Consumer Home Use Test: Flash Foam




Amount of time to lather was "Just right" for n = 18

*Sulfate-free Shampoo 7-SM-75 has excellent flash foam*

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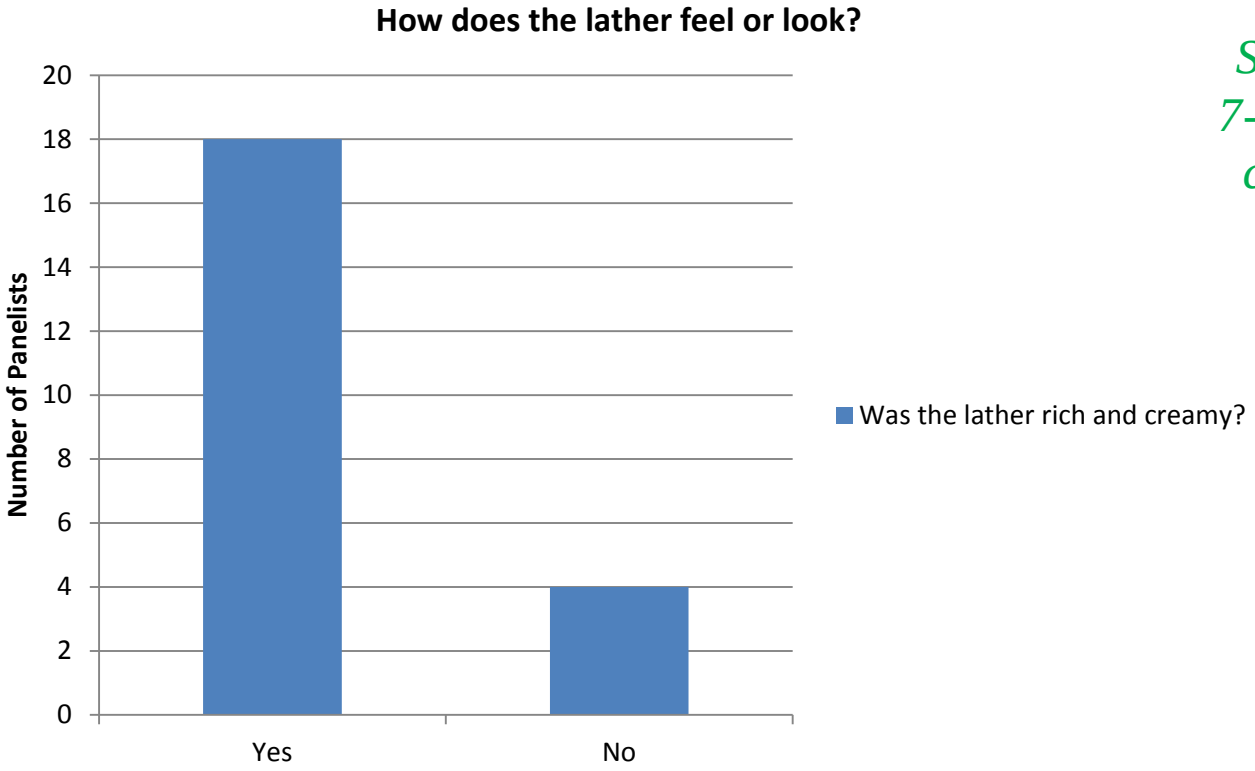
# Sulfate-Free Shampoo 7-SM-75 Consumer Home Use Test: Foam Texture




*Sulfate-free Shampoo 7-SM-75 has a rich and creamy foam texture*

Generally, panelists felt the foam was “rich and creamy”

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# Hostapon® SCB: Sulfate-Free Color Protection Shampoo

## Sulfate-Free Daily Color Care Shampoo — 2-AW-42

*Sulfate-free shampoo with superior foam performance*
*Mild surfactant blend and SilCare® Silicone SEA provide color protection*

| | | |
|---|---|---|
| A | Water | ad 100 % |
| | Polyglykol® 300 | 0.25 % |
| | *PEG-6* | |
| | Polyglykol® 1500 | 0.25 % |
| | *PEG-32* | |
| B | **Emulsogen® LS-24 Gel** | **4.00 %** |
| | ***Sodium Laureth-13 Carboxylate*** | |
| | Glycol Distearate | **1.50 %** |
| C | **Hostapon® SCB** | **35.00 %** |
| | ***Coco Betaine (and) Sodium Cocoyl Isethionate*** | |
| | Phenonip® XB | 0.60 % |
| | *Phenoxyethanol (and) Methylparaben (and) Ethylparaben (and) Propylparaben* | |
| | Panthenol | 0.50 % |
| | SilCare® Silicone SEA | 1.00 % |
| | *Trideceth-9 PG-Amodimethicone (and) Trideceth-12* | |
| | Genapol® LT | 5.00 % |
| | *PEG-150 Polyglyceryl-2 Tristearate (and) Laureth-3 (and) Dipropylene Glycol* | |

Procedure

I Combine components of A with stirring and mix until uniform.

II Once all components have fully dissolved, heat to 70ºC and add the components of B with stirring.

III Mix until all components are dissolved and mixture is uniform.

IV Remove heat and add components of C with stirring. Mix until uniform.

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# Hostapon® CT Liq : Ideal for **clear** sulfate free formulations

**Sulfate free shampoo: Sodium methyl cocoyl taurate**


**3,770 cP**

**Sulfate free shampoo: Hostapon CT Liq**


**8,490 cP**

Viscosity: (Brookfield RV DVII, 25°C, 20 rpm, 1 min)

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# Hostapon® CT Liq : Ideal for **clear** sulfate free formulations

| | Sulfate Free Shampoo F320 | % w/w |
|---|---|---|
| A | Aqua | To 100.00% |
| | Polyquaternium-10 | 0.20% |
| | PEG-6000 Distearate | 0.80% |
| B | Genagen® KB<br>*Coco-Betaine* | 16.67% |
| | **Hostapon® CT Liq**<br>***Sodium Methyl Cocoyl Taurate*** | **16.00%** |
| C | Hydrolyzed Wheat Protein | 0.20% |
| | D-Panthenol | 0.20% |
| | Nipaguard® CG<br>*Methylchloroisothiazolinone (and) Methylisothiazolinone* | 0.15% |

I. Homogenize the phase A under heating (approx. 50°C).
II. Add B to I under stirring.
III. Add the components of C one after another to IV and homogenize with high stirring.
IV. Cool down to 25°C.
V. Add the components of D one after another to IV and homogenize during approx. 20 minutes.
VI. If necessary, adjust the pH to 6.5.

pH: 6.0 – 7.0 Viscosity (Brookfield): 7,000 – 9,000 cP, RV 5, 20 RPM
Stability: stable at RT, 2°C and 45°C for 12 weeks

**Sulfate free shampoo: Hostapon CT Liq**


**8,490 cP**

Viscosity: (Brookfield RV DVII, 25°C, 20 rpm, 1 min)

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# Hostapon® CT Liq
# Sulfate-Free Multi-cultural Shampoo 03413_321

| | | |
|---|---|---|
| A | Aqua | To 100.00% |
| | Polyquaternium-10 | 0.20% |
| | PEG-6000 Distearate | 0.42% |
| B | Genagen® KB<br>*Coco-Betaine* | 16.67% |
| | **Hostapon® CT Liq**<br>***Sodium Methyl Cocoyl Taurate*** | **12.00%** |
| | **Hostapon® SCI 85 P**<br>***Sodium Cocoyl Isethionate*** | **1.16%** |
| C | Hydrolyzed Wheat Protein | 0.20% |
| | D-Panthenol | 0.20% |
| | Nipaguard® CG<br>*Methylchloroisothiazolinone (and) Methylisothiazolinone* | 0.15% |

**Procedure**:

I. Homogenize the phase A under heating (approx. 50°C).
II. Add B to I under stirring.
III. Add the components of C one after another to IV and homogenize with high stirring.
IV. Cool down to 25°C.
V. Add the components of D one after another to IV and homogenize during approx. 20 minutes.
VI. If necessary, adjust the pH to 6.5.

**Physical Properties:**

**pH:** 6.0 – 7.0

**Appearance**: clear yellowish

**Viscosity (Brookfield):** 7,000 – 9,000 cP, RV 5, 20 RPM

**Stability:** stable at RT, 2°C and 45°C for 12 weeks

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# Hostapon® CT Liq
# Sulfate-Free Color Protection Shampoo 03413_323

| | | |
|---|---|---|
| A | Aqua | To 100.00% |
| | Polyquaternium-10 | 0.20% |
| | PEG-6000 Distearate | 1.40% |
| B | Genagen® KB<br>*Coco-Betaine* | 16.67% |
| | **Hostapon® CT Liq**<br>***Sodium Methyl Cocoyl Taurate*** | **16.00%** |
| C | Hydrolyzed Wheat Protein | 0.20% |
| | D-Panthenol | 0.20% |
| | **Silcare® Silicone SEA**<br>***Trideceth-9 PG-Amodimethicone and Trideceth-12*** | **0.60%** |
| | Nipaguard® CG<br>*Methylchloroisothiazolinone (and) Methylisothiazolinone* | 0.15% |

**Procedure**:

I. Homogenize the phase A under heating (approx. 50°C).
II. Add B to I under stirring.
III. Add the components of C one after another to IV and homogenize with high stirring.
IV. Cool down to 25°C.
V. Add the components of D one after another to IV and homogenize during approx. 20 minutes.
VI. If necessary, adjust the pH to 6.5.

**Physical Properties:**

**pH:** 6.0 – 7.0

**Appearance**: clear yellowish

**Viscosity (Brookfield):** 7,000 – 9,000 cP, RV 5, 20 RPM

**Stability:** stable at RT, 2°C and 45°C for 12 weeks

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# Hostapon® CT Liq
# Sulfate-Free Shampoo 03413_326

| | | |
|---|---|---|
| A | Aqua | To 100.00% |
| | Polyquaternium-10 | 0.20% |
| | PEG-6000 Distearate | 0.40% |
| B | Genagen® CAB-CM<br>*Cocoamidopropyl Betaine* | 16.67% |
| | **Hostapon® CT Liq**<br>***Sodium Methyl Cocoyl Taurate*** | **12.00%** |
| C | Hydrolyzed Wheat Protein | 0.20% |
| | D-Panthenol | 0.20% |
| | Nipaguard® CG<br>*Methylchloroisothiazolinone (and) Methylisothiazolinone* | 0.15% |

**Procedure**:

I. Homogenize the phase A under heating (approx. 50°C).
II. Add B to I under stirring.
III. Add the components of C one after another to IV and homogenize with high stirring.
IV. Cool down to 25°C.
V. Add the components of D one after another to IV and homogenize during approx. 20 minutes.
VI. If necessary, adjust the pH to 6.5.

**Physical Properties:**

**pH:** 6.0 – 7.0

**Appearance**: clear yellowish

**Viscosity (Brookfield):** 13,000 – 16,000 cP, RV 6, 20 RPM

**Stability:** stable at RT, 2°C and 45°C for 12 weeks

# SULFATE-FREE CLEANSING BARS

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# Hostapon® SCI
# Mild Surfactant for Sulfate-Free Cleansing Bars

Mild Cleansing Bar Types
- Combo bars: Synthetic detergents + traditional soaps
- Syndet bars: Synthetic detergents only

***Hostapon® SCI is ideal for Combo and Syndet bars***

**Hostapon® SCI 65**
Sodium cocoyl isethionate + ~30% fatty acid
Recommended for bar formulations

*Available in easy to melt chips/flakes*

**Hostapon® SCI 85**
Sodium cocoyl isethionate + ~10% fatty acid
Recommended for liquid formulations



*Available in three easy to melt forms: chips/flakes, granules, powder*

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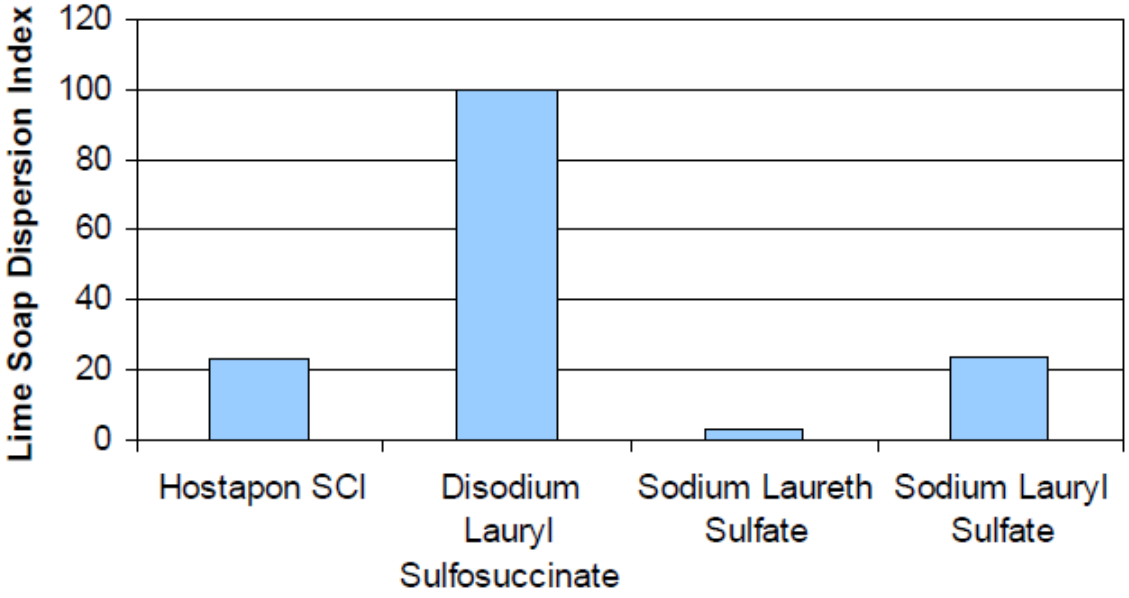
# Hostapon® SCI
# Good Soap Scum Dispersion

– Hostapon® SCI provides soap scum dispersion in combo bars to eliminate soap scum on the shower and leave a clean feeling on skin

Better soap scum dispersion




– Lime Soap Dispersion Index is the amount of surfactant needed to disperse 100 parts of calcium oleate

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# Hostapon® SCI
# Sulfate-Free Syndet Bar

| | | | |
|---|---|---|---|
| Syndet Cleansing Bar<br>*Mild cleansing bar*<br>*Excellent lathering and skin feel*<br>*Sulfate-free and soap-free* | | All / 5006 | |
| A | **Hostapon® SCI 65 C (Clariant)**<br>***Sodium Cocoyl Isethionate (and) Stearic Acid*** | **64.50 %** | Procedure<br>I Preheat kneader (mixer) for 1 hour at 85°C<br>II Add the components into the kneader and knead for 30 minutes<br>III Cool and feed through roll mill |
| | Lauroyl Sarcosine | 20.00 % | |
| | Corn Starch | 10.00 % | |
| | Titanium Dioxide | 0.50 % | |
| | Sodium Carbonate | 5.00 % | |

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# Hostapon® SCI
# Sulfate-Free Combo Bar

Combo Cleansing Bar
*Mild cleansing bar*
*Enhanced, rich lather with clean rinse afterfeel*
*Improved lime soap dispersion from Hostapon® SCI 85*

| | | |
|---|---|---|
| A | **Hostapon® SCI 85 P (Clariant)** | **49.00 %** |
| | ***Sodium Cocoyl Isethionate*** | |
| | Stearic Acid | 18.00 % |
| | Sodium Tallowate | 10.00 % |
| | Hostapon® SI (Clariant) | 4.00 % |
| | *Sodium Isethionate* | |
| | Coconut Fatty Acid | 5.00 % |
| | Sodium Stearate | 3.00 % |
| | Genagen® CAB 818 (Clariant) | 2.00 % |
| | *Cocamidopropyl Betaine* | |
| | Water | 8.00 % |
| | Sodium Chloride | 1.00 % |

Procedure

I Preheat kneader (mixer) for 1 hour at 85°C

II Add the components into the kneader and knead for 30 minutes

III Cool and feed through roll mill

** Alternative option is to replace Hostapon® SCI 85 P and Stearic Acid/Coconut Fatty Acid with Hostapon® SCI 65 C*

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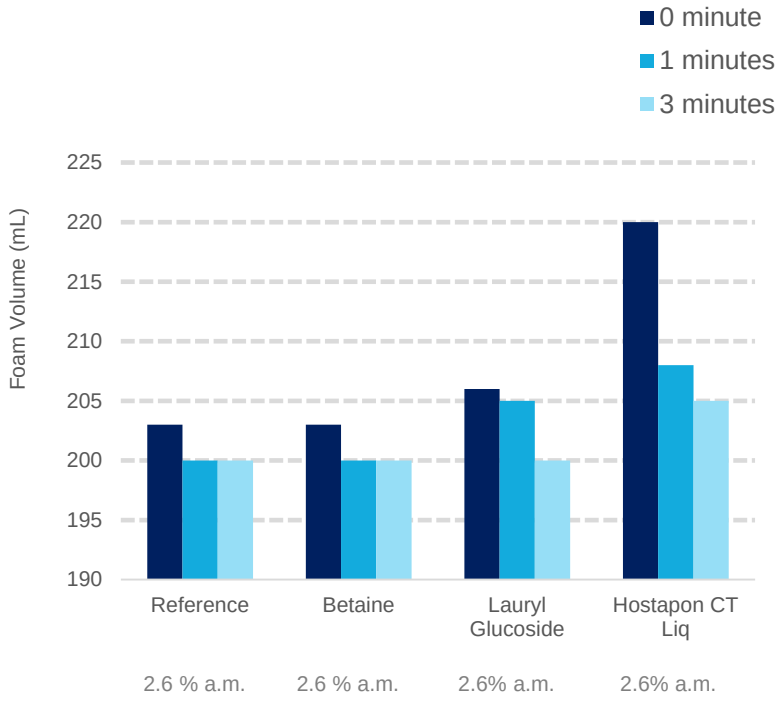
# Hostapon® CT Liq: creamy stable **Flash Foam**

## Bar Soap

Hostapon® CT Liq formulations provides a superior **Flash Foaming** performance vs other surfactants (even in hard water)




| Bar Soap Formulation | SP8-T |
|---|---|
| Soap Base (100% Vegetable) | 83% |
| Titanium Dioxide | 0.1% |
| Etidronic Acid | 0.1% |
| Tetrasodium EDTA | 0.1% |
| Propyleneglycol | 0.5% |
| Glycerin | 1.7% |
| BHT | 0.04% |
| Aqua | qs 100 |
| Zea Mays Starch | 3.5% |
| (Co-Surfactant) | 2.6% |

Test Conditions: 1g Soap/L, 25°C, water hardness 180ppm $CaCO_3$;

# HIGH EFFICIENCY FOAM BOOSTING

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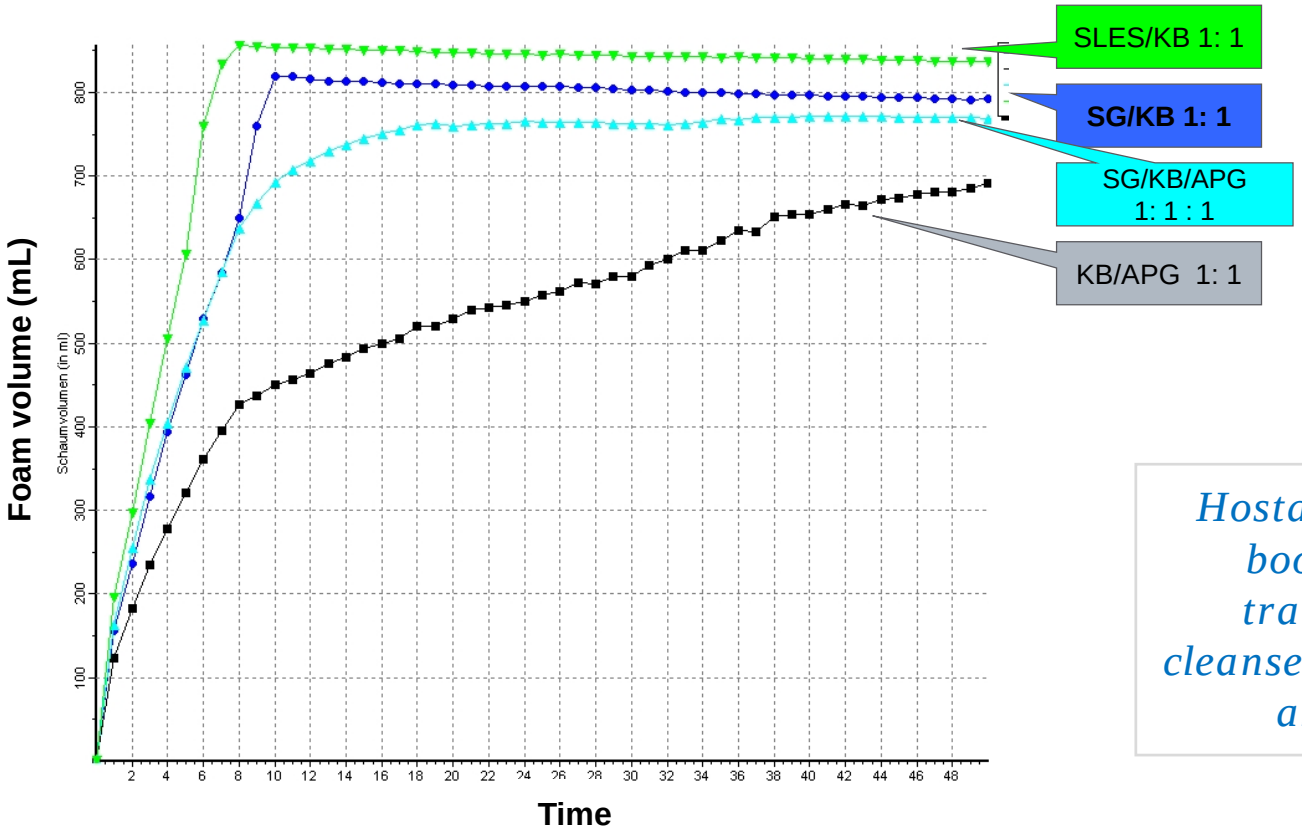
# Hostapon® SG
# Boost foam of traditional Sulfate-Free Cleansers




SG = Sodium Cocoyl Glycinate
KB = Coco Betaine
SLES = Sodium Laureth Sulfate
APG = Coco Glucoside

*Hostapon® SG significantly boosts foam volume of traditional sulfate-free cleansers based on betaine and alkyl polyglucoside*

Sita-Foam Tester (0.01% a.m. surfactant in DI water, 37°C, pH=8)

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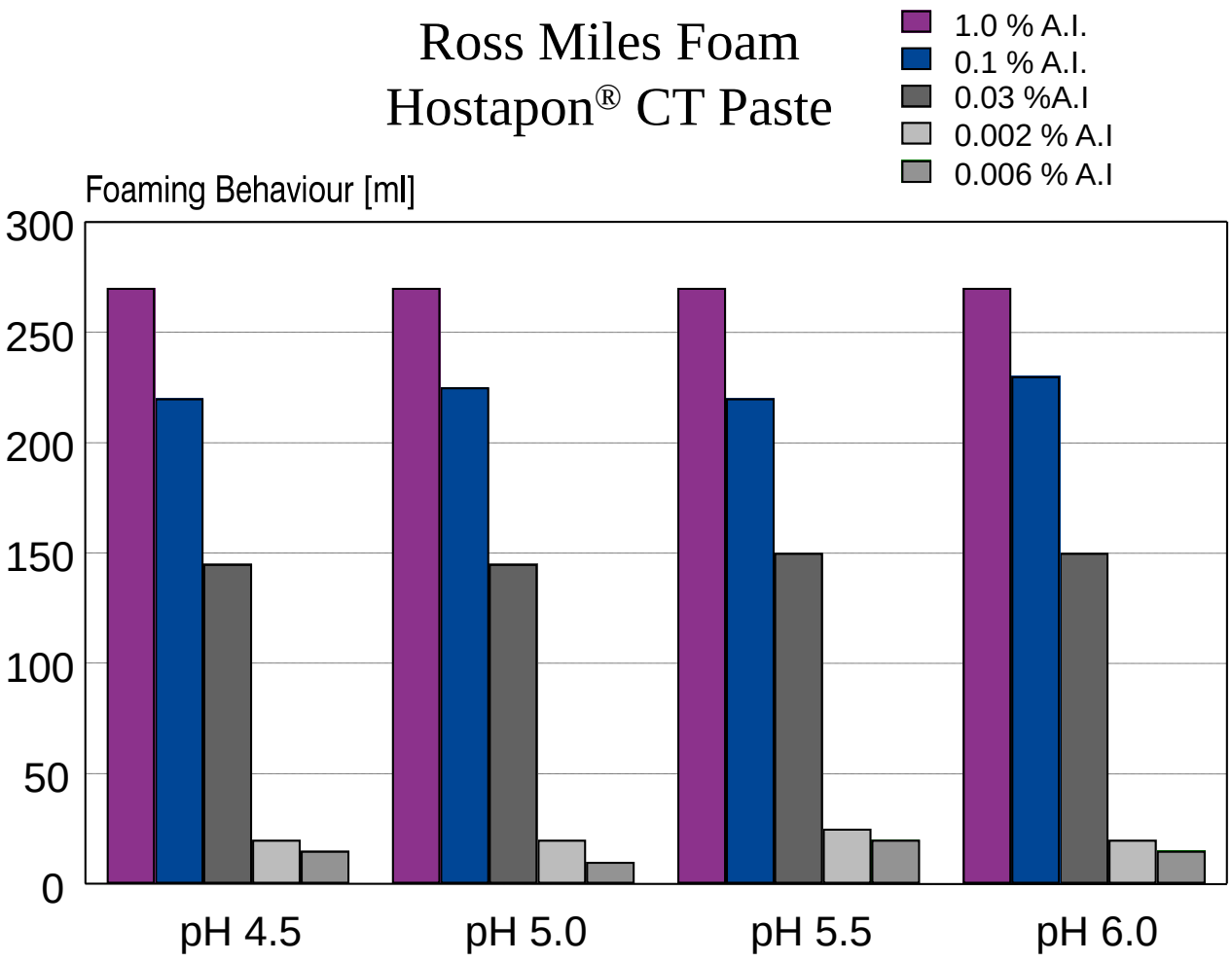
# Hostapon® CT Paste
# High Foam Performance at Low Use Levels




*Hostapon® CT Paste provides high foam at concentrations as low as 0.1% active surfactant*

*Hostapon® CT Paste is an ideal co-surfactant for sulfate-free liquid and bar formulations*

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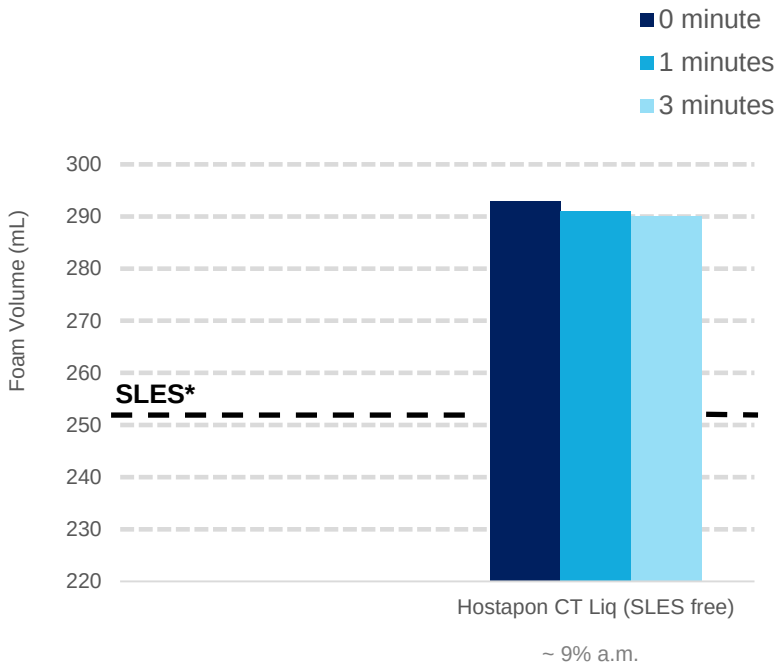
# Hostapon® CT Liq: creamy stable **Flash Foam**

## Shampoo

Hostapon® CT Liq formulation provides superior profile of **Foam generation** than SLES




*Dotted line represents typical SLES value.

Test Conditions: 1g shampoo/L, 25°C, water hardness 70 ppm $CaCO_3$;

| Sulfate Free Shampoo | | %w/w |
|---|---|---|
| A | Water | To 100% |
| | Polyquaternium-10 | 0.2% |
| B | Glycerin | 1.0% |
| | **Hostapon® CT Liq** ***Sodium Methyl Cocoyl Taurate*** | **12.0%** |
| | Genagen® KB *Coco-Betaine* | 16.67% |
| | **Hostapon® SCI 85 P** ***Sodium Cocoyl Isethionate*** | **1.16%** |
| D | Hydrolyzed Wheat Protein | 0.2% |
| | D-Panthenol | 0.2% |
| | Nipaguard® CG *Methylchloroisothiazolinone (and) Methylisothiazolinone* | 0.15% |
| E | PEG-6000 Distearate | 0.42% |

I. Homogenize the components of phase A.
II. Add B into 1 and homogenize.
III. Homogenize the components of phase C.
IV. Add 2 into 3 and mix very well in high stirring.
V. Add the components of D one after another to 4 and homogenize during approx. 20 minutes.
VI. Heat an aliquot of 5, add phase E and homogenize under heating until fully melt.
VII. Add 6 into the rest of 5 and homogenize.

# FOAMING IN THE PRESENCE OF HIGH OIL LOADS

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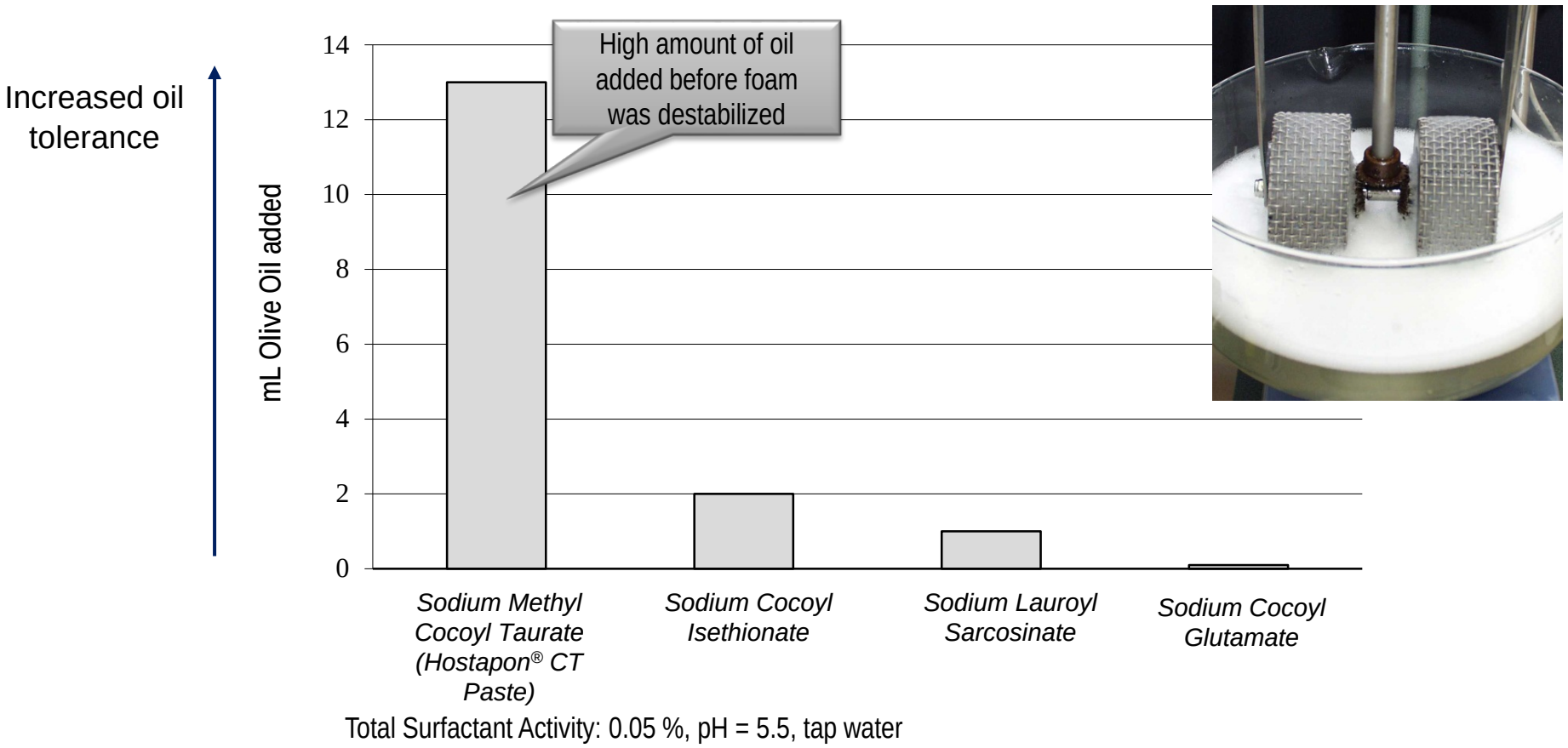
# Hostapon® CT Paste
# Stabilize Foam in the Presence of Oils

Determination of oil quantity needed to break the foam surface




Total Surfactant Activity: 0.05 %, pH = 5.5, tap water

# ENHANCING FORMULATION MILDNESS

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07.09.2012

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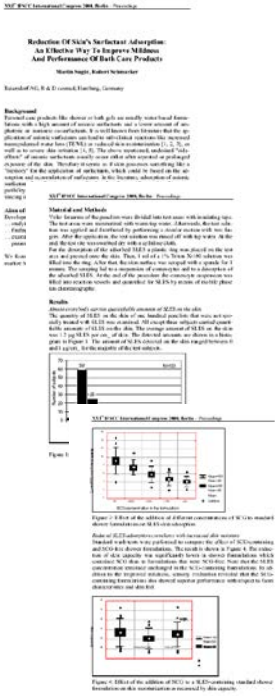
CLARIANT

# Hostapon® CGN

## Enhanced Skin Moisture Content in Rinse-off Applications



**XXI[st] IFSCC International Congress 2000, Berlin** – Proceedings

### Reduction Of Skin's Surfactant Adsorption: An Effective Way To Improve Mildness And Performance Of Bath Care Products

**Martin Sugár, Robert Schmucker**

Beiersdorf AG, R & D cosmed, Hamburg, Germany

**Discussion**

It was shown that the anionic surfactant SLES possesses a high substantivity to human skin. Even short-term contact with human skin lead to a quantifiable and long lasting adsorption of the surfactant.

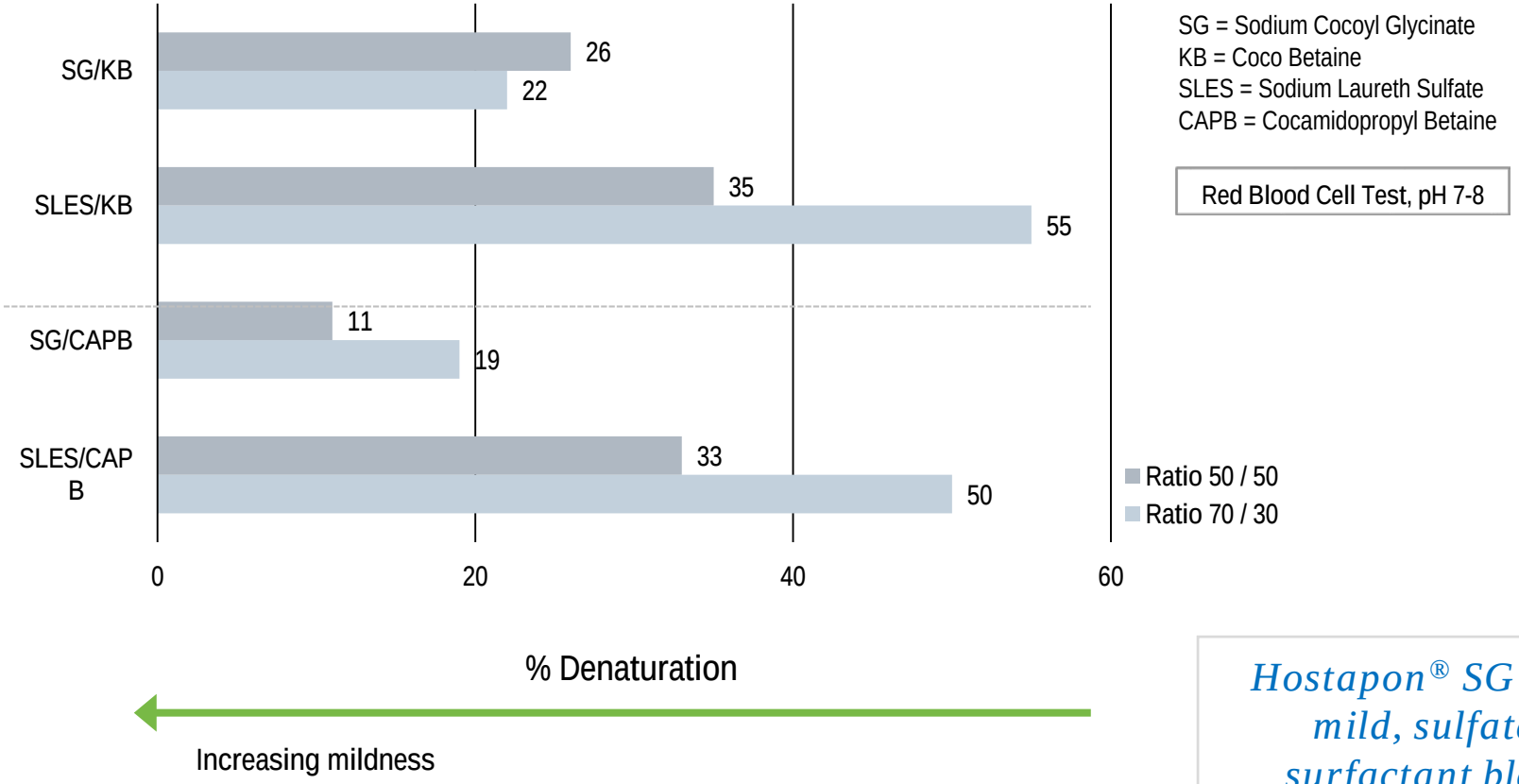
A reduction of SLES adsorption was achieved by the addition of the mild co-surfactant Sodium Cocoyl Glutamate (CCG) to standard shower formulations. CCG itself did not adsorb onto the skin in relevant amounts. The reduced SLES adsorption correlated with an increased moisture content of the skin, with enhanced mildness and with an improved sensory perception of the formulations.



*Note: same effect will occur with Hostapon® CGN*

CLARIANT

# Hostapon® SG
# Significantly milder surfactant blends




SG = Sodium Cocoyl Glycinate
KB = Coco Betaine
SLES = Sodium Laureth Sulfate
CAPB = Cocamidopropyl Betaine

Red Blood Cell Test, pH 7-8

*Hostapon® SG provides mild, sulfate-free surfactant blends in combination with betaines*

TOI

# IMPROVED RINSABILITY

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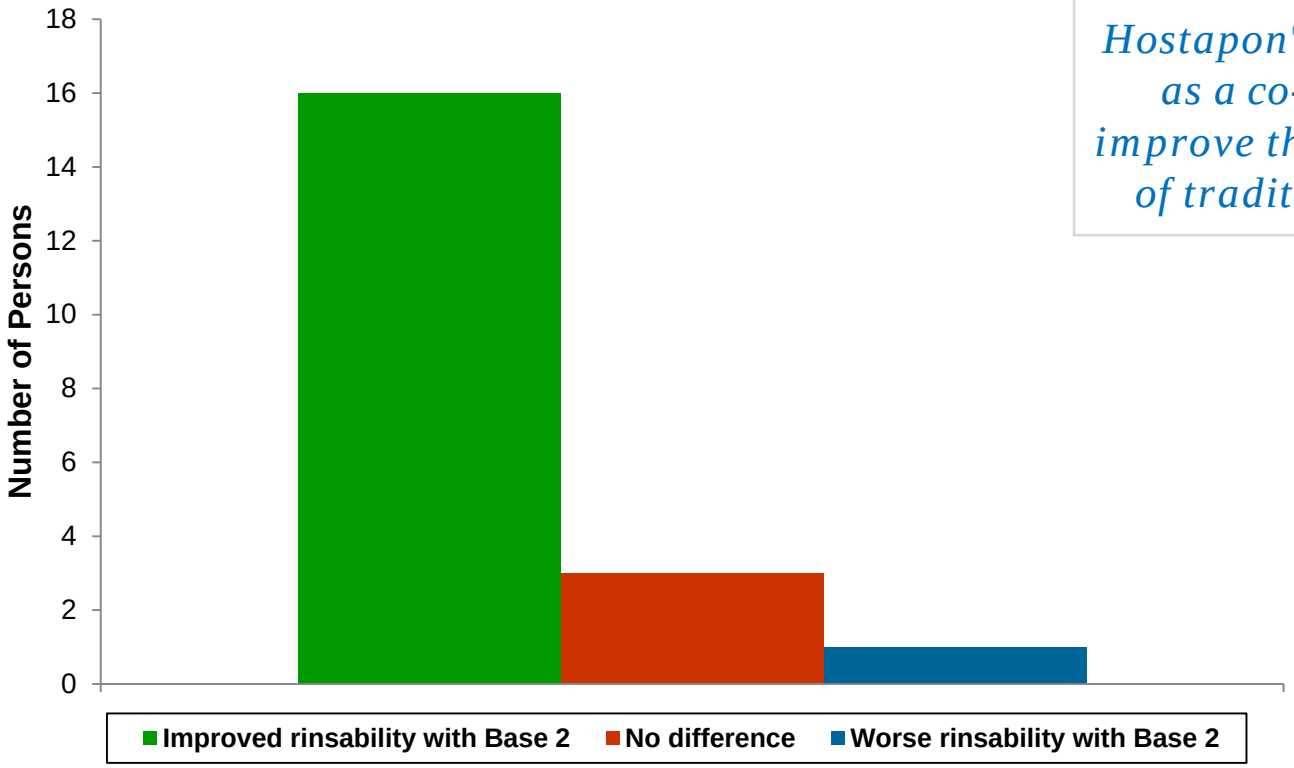
# Hostapon® SG
# Improved rinsability of traditional cleansers




*Hostapon® SG can be used as a co-surfactant to improve the clean rinse feel of traditional cleansers*

Rinsability Panel Evaluation (n=20): 10% SLES (Base 1) and 10% SLES + 3% Hostapon® SG (Base 2)

# COLD PROCESSABILITY

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# Cold Processable, Sulfate-free, Mild Surfactants

– Cold Processable primary or co-surfactants

- Hostapon® SCB: *Coco-betaine (and) Sodium Cocoyl Isethionate*
- Hostapon® SG: *Sodium Cocoyl Glycinate*

– Cold Processable co-surfactants

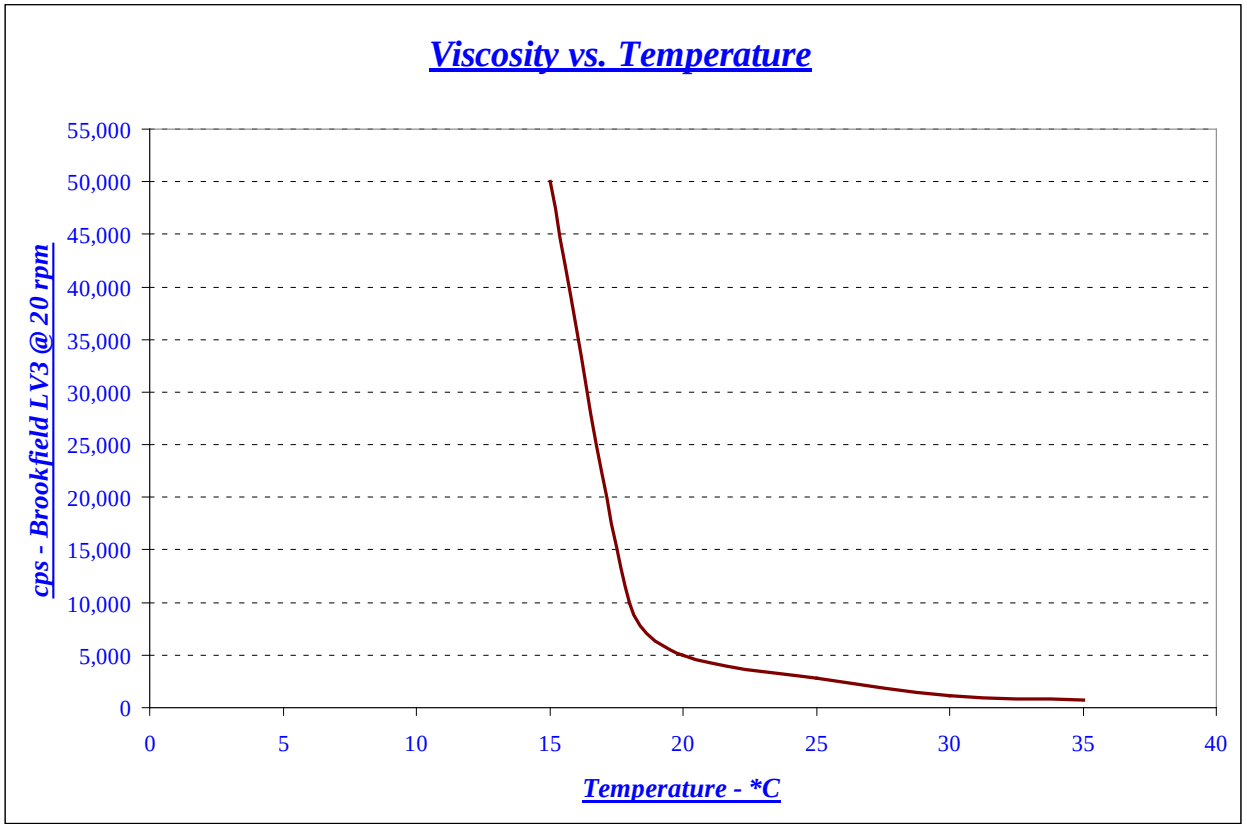
- Hostapon® CT Liq : *Sodium Methyl Cocoyl Taurate*
- Hostapon® CGN: *Sodium Cocoyl Glutamate*
- Emulsogen® LS-24 Gel: Sodium Laureth-13 Carboxylate

CLARIANT

# Hostapon® SCB
# Benefits of Hostapon® SCI with Cold Processability

Sodium Cocoyl Isethionate is a solid and requires heat in formulation

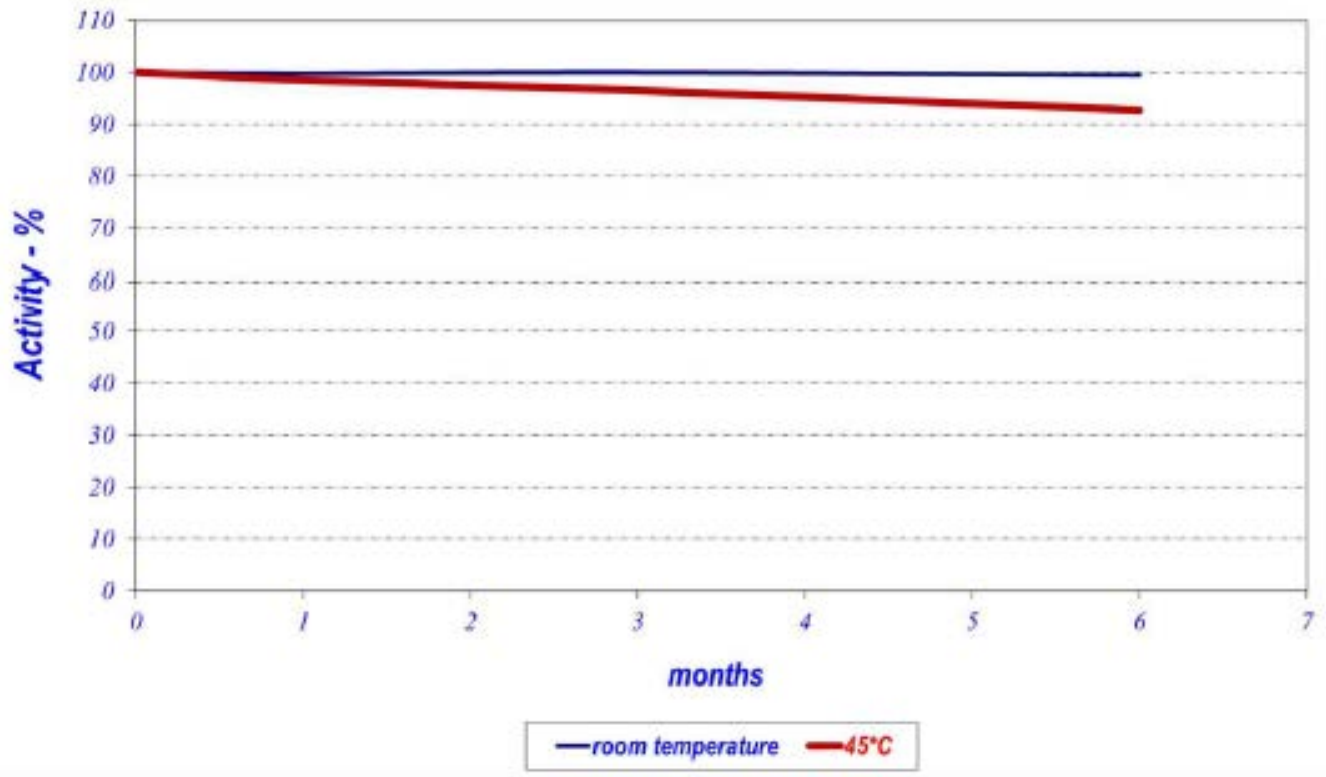
*Hostapon® SCB blends Sodium Cocoyl Isethionate with Coco-betaine for a cold processable liquid with low viscosity at room temperature*



CLARIANT

# Hostapon® SCB
# Minimal Sodium Cocoyl Isethionate Hydrolysis

*Blend of Sodium Cocoyl Isethionate with Coco-betaine provides improved stability against hydrolysis for Sodium Cocoyl Isethionate at room temperature and elevated temperature*



CLARIANT

# Hostapon® CT Liq : **Cold Processable** & **Liquid**

Sodium Methyl Cocoyl Taurate
~30% a.m.

Pearly / Paste

31,600 cP

Sodium Methyl Cocoyl Taurate
~ 24% a.m.

Pearly / Viscous

8,860 cP

Hostapon® CT Liq
~24% a.m.

Clear / Liquid

75 cP

Viscosity: (Brookfield RV DVII, 25°C, 20 rpm, 1 min)

# FORMULATION VERSATILITY FROM ONE SURFACTANT

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# Hostapon® SCI
# Versatile Primary Surfactant and Co-Surfactant

- Syndet Cleansing Bar
- Combo Cleansing Bar
- Conditioning Shampoo
- Clear Body Wash

CLARIANT

# Hostapon® SCI: Versatile Primary Surfactant

| | | |
|---|---|---|
| Syndet Cleansing Bar<br>*Mild bar cleansing form*<br>*Excellent lathering and skin feel*<br>*Soap-free* | | AII / 5006 |
| A | **Hostapon® SCI 65 C (Clariant)**<br>***Sodium Cocoyl Isethionate (and) Stearic Acid*** | **64.50 %** |
| | Lauroyl Sarcosine | 20.00 % |
| | Corn Starch | 10.00 % |
| | Titanium Dioxide | 0.50 % |
| | Sodium Carbonate | 5.00 % |

Procedure

I Preheat kneader (mixer) for 1 hour at 85°C

II Add the components into the kneader and knead for 30 minutes

III Cool and feed through roll mill

CLARIANT

# Hostapon® SCI: Versatile Primary Surfactant

## Combo Cleansing Bar

*Mild cleansing bar*
*Enhanced, rich lather with clean rinse afterfeel*
*Improved lime soap dispersion from Hostapon® SCI 85*

| | | |
|---|---|---|
| A | **Hostapon® SCI 85 P (Clariant)** | **49.00 %** |
| | ***Sodium Cocoyl Isethionate*** | |
| | Stearic Acid | 18.00 % |
| | Sodium Tallowate | 10.00 % |
| | Hostapon® SI (Clariant) | 4.00 % |
| | *Sodium Isethionate* | |
| | Coconut Fatty Acid | 5.00 % |
| | Sodium Stearate | 3.00 % |
| | Genagen® CAB 818 (Clariant) | 2.00 % |
| | *Cocamidopropyl Betaine* | |
| | Water | 8.00 % |
| | Sodium Chloride | 1.00 % |

Procedure

I Preheat kneader (mixer) for 1 hour at 85°C

II Add the components into the kneader and knead for 30 minutes

III Cool and feed through roll mill

** Alternative option is to replace Hostapon® SCI 85 P and Coconut Fatty Acid with Hostapon® SCI 65 C*

CLARIANT

# Hostapon® SCI: Versatile Co-surfactant

| Conditioning Shampoo<br>*Mild shampoo with conditioning benefits for everyday use* | | BI / 6201 |
|---|---|---|
| A | Polyquaternium-10 | 0.40 % |
| | **Hostapon® SCI 65 C (Clariant)** | **2.00 %** |
| | ***Sodium Cocoyl Isethionate (and) Stearic Acid*** | |
| | Water | ad 100.00 % |
| B | Sodium Laureth Sulfate | 18.00 % |
| | Dimethicone PEG-6 Acetate | 0.50 % |
| | Genagen® KB (Clariant) | 9.00 % |
| | *Coco Betaine* | |
| | Genaminox® CSL (Clariant) | 2.00 % |
| | *Cocamine Oxide* | |
| | Hostapon® KCG (Clariant) | 5.00 % |
| | *Sodium Cocoyl Glutamate* | |
| C | Glycerin | 2.00 % |
| | Sorbitol | 2.00 % |
| | Quaternium-79 Hydrolyzed Soy Protein | 0.50 % |
| D | Citric Acid | q.s. |
| E | Preservative | q.s. |
| | Fragrance | q.s. |

Procedure

I Dissolve the components of A with stirring in hot water (85ºC)

II Add the components of B, one after another, into I with stirring. If necessary, heat to approx. 70ºC and mix until clear

III Add the components of C one after another into II

IV Adjust the pH using D to approx. pH 5.5

V Add the components of E and mix until uniform

CLARIANT

# Hostapon® SCI: Versatile Co-surfactant

| Clear Body Wash<br>*Mild body wash with high foam and good clarity* | | AI / 8092 |
|---|---|---|
| A | Water | ad 100.00 % |
| | **Hostapon® SCI 85 C (Clariant)** | **5.00 %** |
| | ***Sodium Cocoyl Isethionate*** | |
| | PEG-120 Methyl Glucose Dioleate | 2.50 % |
| B | Sodium Laureth Sulfate | 30.00 % |
| | Velsan® CG 070 (Clariant) | 2.00 % |
| | *PEG-7 Glyceryl Cocoate* | |
| | Genagen® CAB (Clariant) | 6.00 % |
| | *Cocamidopropyl Betaine* | |
| | Glycerin | 2.00 % |
| C | Preservative | q.s. |
| | Fragrance | q.s. |

Procedure

I Dissolve the components of A with stirring in hot water (85ºC)

II Add the components of B, one after another, into I with stirring. If necessary, heat to approx. 70ºC and mix until clear

III At room temperature, add the components of C into II

IV If necessary, adjust the pH

CLARIANT

# Hostapon® SCB
# Versatile Primary Surfactant

- Sulfate-free Daily Color Care Shampoo
- Men’s 3-in-1 Wash (shampoo, shower, shave)
- Gentle Cleansing Water
- Premium Cream Cleanser

CLARIANT

# Hostapon® SCB: Versatile Primary Surfactant

## Sulfate-Free Daily Color Care Shampoo — 2-AW-42

*Sulfate-free shampoo with superior foam performance*
*Mild surfactant blend and SilCare® Silicone SEA provide color protection*

| | | |
|---|---|---|
| A | Water | ad 100 % |
| | Polyglykol® 300 (Clariant) | 0.25 % |
| | *PEG-6* | |
| | Polyglykol® 1500 (Clariant) | 0.25 % |
| | *PEG-32* | |
| B | **Emulsogen® LS-24 Gel (Clariant)** | **4.00 %** |
| | ***Sodium Laureth-13 Carboxylate*** | |
| | Glycol Distearate | **1.50 %** |
| C | **Hostapon® SCB (Clariant)** | **35.00 %** |
| | ***Coco Betaine (and) Sodium Cocoyl Isethionate*** | |
| | Phenonip® XB (Clariant) | 0.60 % |
| | *Phenoxyethanol (and) Methylparaben (and) Ethylparaben (and) Propylparaben* | |
| | Panthenol | 0.50 % |
| | SilCare® Silicone SEA (Clariant) | 1.00 % |
| | *Trideceth-9 PG-Amodimethicone (and) Trideceth-12* | |
| | Genapol® LT (Clariant) | 5.00 % |
| | *PEG-150 Polyglyceryl-2 Tristearate (and) Laureth-3 (and) Dipropylene Glycol* | |

Procedure

I Combine components of A with stirring and mix until uniform.

II Once all components have fully dissolved, heat to 70ºC and add the components of B with stirring.

III Mix until all components are dissolved and mixture is uniform.

IV Remove heat and add components of C with stirring. Mix until uniform.

CLARIANT

# Hostapon® SCB: Versatile Primary Surfactant

## Men's 3-in-1 Wash — 2-AW-41

*Sulfate-free shampoo, shower, and shave 3-in-1 formulation*

| | | |
|---|---|---|
| A | Water | ad 100 % |
| | Polyglykol® 300 (Clariant) | 0.25 % |
| | *PEG-6* | |
| | Polyglykol® 1500 (Clariant) | 0.25 % |
| | *PEG-32* | |
| B | **Emulsogen® LS-24 Gel (Clariant)** | **4.00 %** |
| | ***Sodium Laureth-13 Carboxylate*** | |
| | Glycol Distearate | **1.50 %** |
| C | **Hostapon® SCB (Clariant)** | **35.00 %** |
| | ***Coco Betaine (and) Sodium Cocoyl Isethionate*** | |
| | Phenoxetol® (Clariant) | 1.00 % |
| | *Phenoxyethanol* | |
| | Panthenol | 0.50 % |
| | Genamin® PQ 43 PB (Clariant) | 1.00 % |
| | *Polyquaternium-43* | |
| | Genapol® LT (Clariant) | 5.00 % |
| | *PEG-150 Polyglyceryl-2 Tristearate, Laureth-3, Dipropylene Glycol* | |

Procedure

I Combine components of A with stirring and mix until uniform.

II Once all components have fully dissolved, heat to 70ºC and add the components of B with stirring.

III Mix until all components are dissolved and mixture is uniform.

IV Remove heat and add components of C with stirring. Mix until uniform.

CLARIANT

# Hostapon® SCB: Versatile Primary Surfactant

## Gentle Cleansing Water — 1-AW-5

Hostapon® SCB provides gentle and effective cleansing.
Polyglykol® 300, Polyglykol® 1500, and Velsan® P8-3 provide a light, conditioned feel.
Velsan® SC boosts preservation of this low active surfactant formulation.

| | | |
|---|---|---|
| A | Genapol® G260 (Clariant)<br>*Glycereth-26* | 2.00 % |
| | Velsan® SC (Clariant)<br>*Sorbitan Caprylate* | 0.50 % |
| | Velsan® P8-3 (Clariant)<br>*Isopropyl C12-15-Pareth-9-carboxylate* | 2.00 % |
| | Phenoxetol® (Clariant)<br>*Phenoxyethanol* | 1.00 % |
| B | Tetrasodium EDTA | 0.20 % |
| | **Hostapon® SCB (Clariant)**<br>***Coco Betaine (and) Sodium Cocoyl Isethionate*** | **17.00 %** |
| | Polyglykol® 300 (Clariant)<br>*PEG-6* | 0.25 % |
| | Polyglykol® 1500 (Clariant)<br>*PEG-32* | 0.25 % |
| C | Emulsogen® HCO 040 (Clariant)<br>*PEG-40 Hydrogenated Castor OIl* | 2.00 % |
| D | Water | ad 100 % |

Procedure

I Combine components of A with stirring and mix until uniform.

II Add the components of B with stirring.

III Heat C in a separate vessel to 50ºC until clear. Add C to B while stirring.

IV Add D and mix until uniform

CLARIANT

# Hostapon® SCB: Versatile Primary Surfactant

## Premium Cream Cleanser — 1-AW-23

Creamy texture provides a luxury appearance
Hostapon® SCB and Hostapon® CT Paste provide gentle foaming

| | | |
|---|---|---|
| A | Water | ad 100 % |
| | Glycerin | 2.00 % |
| | Polyglykol® 300 (Clariant)<br>*PEG-6* | 0.25 % |
| | Polyglykol® 1500 (Clariant)<br>*PEG-32* | 0.25 % |
| B | Hostaphat KL 340D (Clariant)<br>Trilaureth-4 Phosphate | 1.00 % |
| | Cetearyl alcohol | 3.00 % |
| | Hostacerin® SFO (Clariant)<br>*Sunflower Seed Oil Sorbitol Esters* | 0.80 % |
| | Velsan® SC (Clariant)<br>*Sorbitan Caprylate* | 2.00 % |
| | Velsan® D8P-3 (Clariant)<br>*Isopropyl PPG-2 Isodeceth-7 carboxylate* | 5.00 % |
| C | **Hostapon® SCB (Clariant)**<br>***Coco Betaine (and) Sodium Cocoyl Isethionate*** | **35.00 %** |
| | **Hostapon® CT Paste (Clariant)**<br>***Sodium Methyl Cocoyl Taurate*** | **10.00 %** |
| | Phenonip® XB (Clariant)<br>*Phenoxyethanol (and) Methylparaben (and) Ethylparaben (and) Propylparaben* | 1.00 % |
| D | Genamin® PQ 43 PB (Clariant)<br>*Polyquaternium-43* | 0.70 % |

Procedure

I Combine components of A with stirring and heating to 75ºC.

II Add the components of B with stirring.

III Remove from heat and add C with stirring.

IV Add D and mix until uniform

CLARIANT

# Hostapon® SG
# Versatile Primary Surfactant

- Ultra Mild Shampoo
- Mild Effect Shower Gel
- Gentle Foaming Facial Wash

CLARIANT

# Hostapon® SG: Versatile Primary Surfactant

## Ultra Mild Shampoo — BI 1169

*Mild surfactant blend makes shampoo ideal for color retention and sensitive scalp claims*
*High performance for everyday use shampoos*

| | | |
|---|---|---|
| A | Octopirox® (Clariant)<br>*Piroctone Olamine* | 0.10 % |
| | Water | ad 100 % |
| B | Sorbitol | 1.00 % |
| C | **Hostapon® SG (Clariant)**<br>***Sodium Cocoyl Glycinate*** | **30.00 %** |
| | Genagen® KB (Clariant)<br>*Coco-Betaine* | 15.00 % |
| | Coco Glucoside | 9.23 % |
| | Velsan® SC (Clariant)<br>*Sorbitan Caprylate* | 1.00 % |
| D | Citric Acid 25 % | approx. 3.25 % |
| E | Methylisothiazolinone | 0.02 % |

Procedure

I Add B to A and stir until the solution is clear

II Add C to I and stir until the solution is homogenious

III Adjust the pH with D to 7.0 to 7.2

IV Heat to approx. 40 ° C und stir until the solution is clear, then cool to room temperature

V Add E to IV

Properties:

pH = 7.05

Viscosity (Brookfield DV-I+): 4220 mPas (T-D, 20 rpm, 20 ° C)
RBC: 11 % Denaturation

CLARIANT

# Hostapon® SG: Versatile Primary Surfactant

## Mild Effect Shower Gel — AI 8191

*Mild, high foaming cleansers with suspension properties for body or hand*
*Formulation chassis ideal for high foaming, mild body or hand wash*

| | | |
|---|---|---|
| A | Water | ad 100 % |
| B | I-Carrageenan | 0.30 % |
| C | **Hostapon® SG (Clariant)** | **30.00 %** |
| | ***Sodium Cocoyl Glycinate*** | |
| | **Hostapon® CCG (Clariant)** | **5.00 %** |
| | ***Sodium Cocoyl Glutamate*** | |
| | Genagen® CAB 818 (Clariant) | 3.33 % |
| | *Cocamidopropyl Betaine* | |
| | Decyl Glucoside | 2.36 % |
| D | Aristoflex® TAC (Clariant) | 1.50 % |
| | *Ammonium Acryloyldimethyltaurate/Carboxyethyl* | |
| | *Acrylate Crosspolymer* | |
| E | Citric Acid 25 % | approx. 1.25 % |
| F | Nipaguard® DMDMH (Clariant) | q.s |
| | *DMDM Hydantoin* | |

Procedure

I Dissolve B in A while stirring and heating to 40 ° C

II Add the components of C and stir until completely dissolved

III Slowly add D while stirring until homogenious

IV Adjust pH with E to approx. 7

V Re-heat the formulation to 50 ° C in case white flakes are occuring after pH adjustment

VI Add F at room temperature

Properties:

pH = 7.00

Viscosity (Brookfield DV-I+):

2180 mPas (T-D, 20 rpm, 20 ° C)

RBC: 34 % Denaturation

CLARIANT

# Hostapon® SG: Versatile Primary Surfactant

## Gentle Foaming Facial Wash — 7-SM-11Bm

*Sulfate-free facial wash with superior foam performance and mild surfactant blend*
*Ideal for sensitive skin claims, and gentle for anti-aging products*
*Surfactant chassis can be used for natural claims, ethoxylate-free, and leveraged to baby cleansers*

| | | |
|---|---|---|
| A | Water | ad 100 % |
| | Genagen® KB (Clariant) | 10.00 % |
| | *Coco Betaine* | |
| | **Hostapon® SG (Clariant)** | **20.00 %** |
| | ***Sodium Cocoyl Glycinate*** | |
| | Velsan® SC (Clariant) | 0.60 % |
| | *Sorbitan Caprylate* | |
| | Glycerin | 1.00 % |
| B | Phenoxetal® (Clariant) | 1.00 % |
| | *Phenoxyethanol* | |
| C | Citric Acid | q.s. |
| | *50% solution in water* | |
| D | Sodium chloride | q.s |

Procedure

I Combine components of A with stirring and mix until uniform.

II Add B and stir until completely dissolved

III Adjust pH with C to 6.5-7.5

V Adjust viscosity with D