

make it billowy.

Lubrizol Surfactants

superior flash foam, feel and appearance for sulfate or amide-free cleansing solutions.

KEY BENEFITS OF AMIDE REPLACEMENTS

For rich, billowy lather and multifunctionality, you can count on our unique amide replacements for cleansing, emulsifying, viscosity modification and foam boosting.

Chemonic™ SI-7 Surfactant (INCI PEG-7 Glyceryl Soyate) derived from soy oil, it not only boosts and stabilizes foam, it builds viscosity and leaves an emollient softening feel.

Chemoryl™ LB-30 Surfactant (INCI Oleyl Betaine (and) Sodium Lauroyl Lactylate) helps emulsify oils, builds viscosity and leaves a silky, conditioning feel.

Chemonic™ LI-3 Surfactant (INCI PEG-3 Glyceryl Cocoate) derived from coconut, it is a foam stabilizer, viscosity builder, reduces the irritation potential of sulfates and leaves a conditioning effect on skin.

EXCEPTIONAL PERFORMANCE

Typical personal care cleansing applications use sodium lauryl sulfate and cocamidopropyl betaine. The charts below show how these amide replacements match or exceed the performance of traditional amides and other competitive amide replacements in these applications.

Figure 1: Foam Volume in Typical Formulation

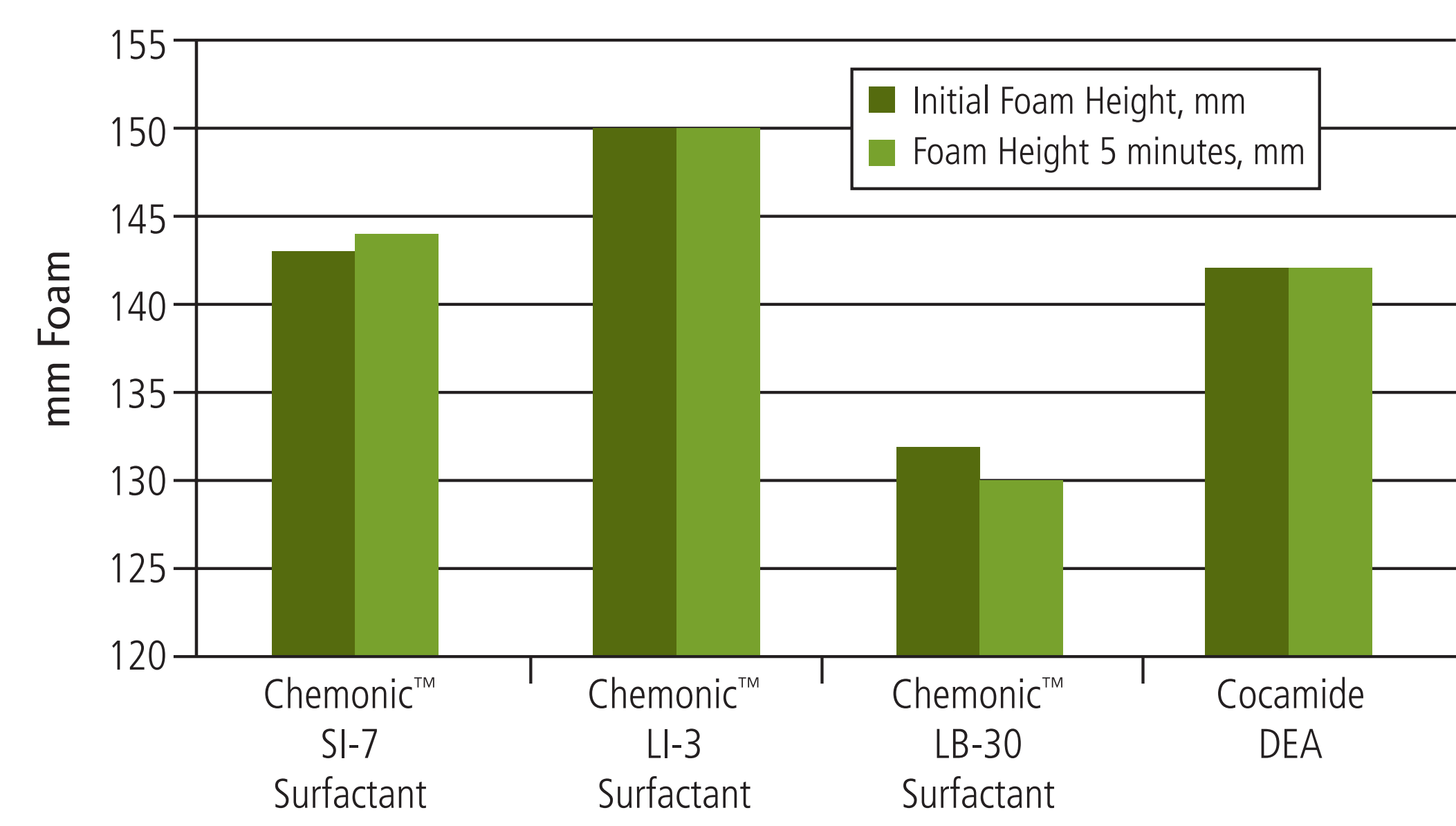
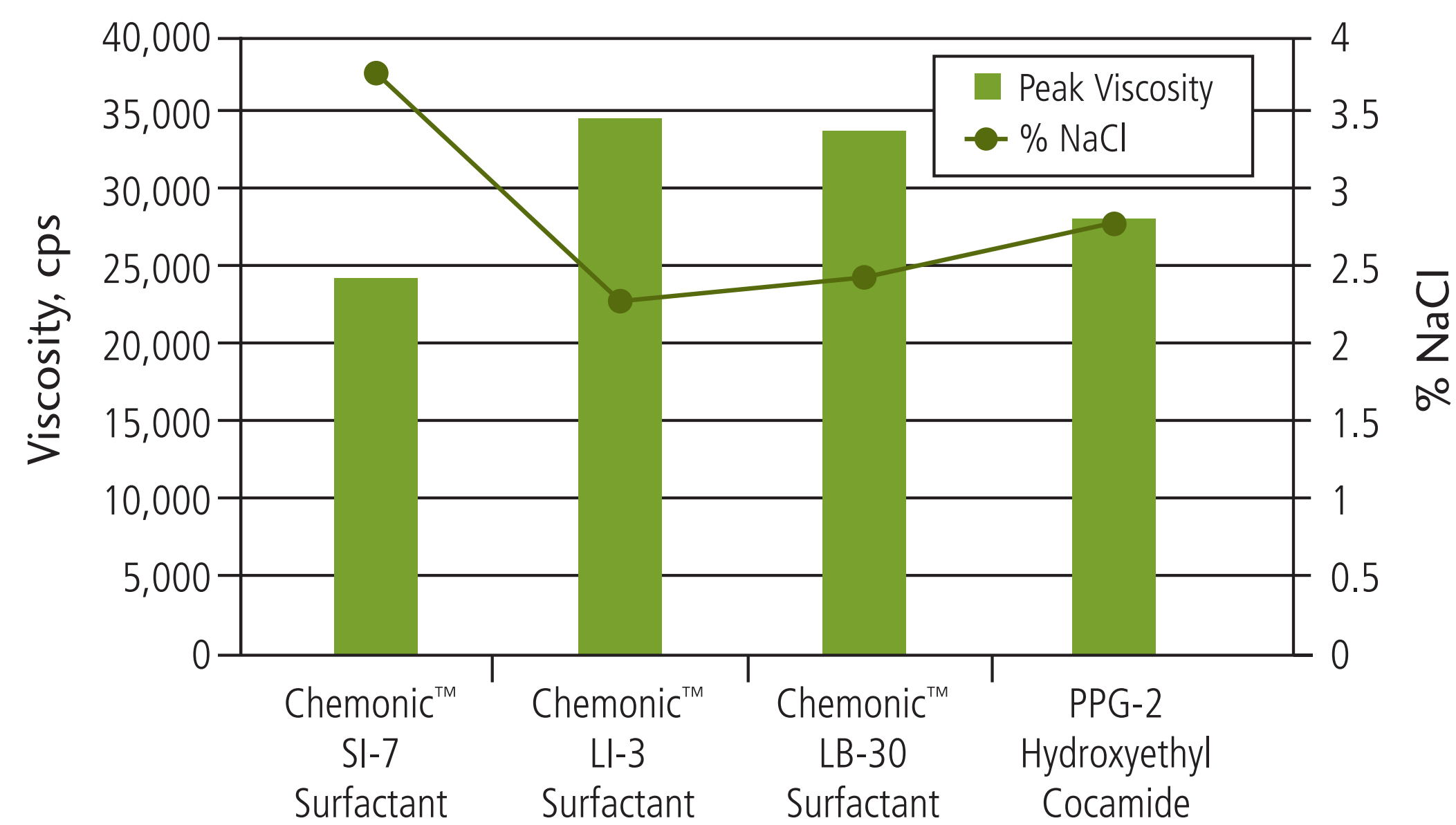


Figure 2: Viscosity (Salt Response) in Typical Formulation



COMPLETE PERFORMANCE BLENDS

Add only fragrance, preservative, and water. Decrease formulating and blending time. Our performance blends simplify your process and allow you to formulate cost-effective finished products with exceptionally low color and odor. For example: **Sulfochem™ B-10AFK surfactant blend** (INCI Ammonium Lauryl Sulfate (and) Ammonium Laureth Sulfate (and) Cocamidopropyl Betaine (and) PEG-3 Glyceryl Cocoate) is an amide-free, mild and high foaming, excellent base for natural shampoos and body washes. It has exceptionally low odor and color, and leaves a conditioning afterfeel on the skin.



Formulate With Confidence™

All trademarks owned by The Lubrizol Corporation. © 2012 The Lubrizol Corporation

NEXT GENERATION BLENDS

Chemoryl™ SFB-10SK surfactant is an alkyl and alkyl ether sulfate-free, amide-free, mild, multi-purpose surfactant concentrate. Its gentle, rich formula is ideally suited for premium shampoos and body washes. At 47% by weight dilution, it forms an easily rinsed shampoo with exceptional foaming. Shampoos formulated with Chemoryl™ SFB-10SK surfactant leave all hair types clean, soft and lustrous. Premium quality body washes may be formulated with 40-50% by weight dilution, which produces a body wash with a clean-rinsing, rich, thick lather.

Table 1: Chemoryl™ SFB-10SK Surfactant

| INCI Description | Function |
|---------------------------------|---|
| Disodium Laureth Sulfosuccinate | Primary foaming and cleansing agent |
| Sodium Cocoyl Isethionate | Mild foam builder and cleansing agent |
| Cocamidopropyl Betaine | Foam booster, cleansing agent, irritation reducer |

This mild, non-irritating, unique blend has excellent flash foam results, and long-term and freeze/thaw stability.

VEGETABLE DERIVED SURFACTANTS FOR USE IN FORMULATIONS REQUIRING “NATURAL” CLAIMS

Chemccinate™ LSC-K Surfactant (INCI: Disodium Lauryl Sulfosuccinate)

- Naturally derived from vegetable oils
- Not preserved with formaldehyde donors
- Made without ethylene oxide
- Secondary surfactant as an anti-irritant and is compatible with anionic, nonionic and amphoteric surfactants
- Primary surfactant in sulfate-free formulations

Chembetaine™ ACB Surfactant (INCI: Coco-Betaine)

- Naturally derived, bio-based amphoteric surfactant
- For personal care cleansing products that require a high vegetable content, and no animal derivatives
- Compatible with other anionic, nonionic and other amphoteric surfactants
- Reduces irritation
- Builds excellent viscosity and foam boosting in hard and soft water
- Very stable in high-electrolyte solutions enabling formulators to solubilize other surfactants into these challenging systems

Sulfochem™ CS-BZ Surfactant (INCI: Sodium Coco-Sulfate)

- Made without ethylene oxide, and is not preserved with formaldehyde donors
- Derived from coconut fatty alcohol and contains no palm kernel derivatives
- Versatile, cost-effective anionic surfactant
- Formulates easily with secondary surfactants when high viscosities and excellent foaming characteristics are desired

For more information, samples and starting formulations visit www.lubrizol.com/personalcare