# Pureact SFB

INCI: Water (and) Sodium Lauroyl Methyl Isethionate (and) Sodium Methyl Lauroyl Taurate (and) Sodium Cocoyl Isethionate (and) Trisodium Ethylenediamine Disuccinate (and) Sodium Benzoate

innospec

# salt-free* & sulfate-free

## Pureact SFB

### A mild, easy to use, cold process blend

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mentions of **'textured hair'** on beauty products has risen by **15.7%****

**"salt-free"** is now frequently linked to being beneficial to **textured hair**

- ✓ Pureact SFB is a unique blend of sulfate-free surfactants that does not contain sodium chloride.
- ✓ Sodium chloride is often found as a by-product in certain surfactants but additionally is utilized in formulating as a viscosity adjuster.
- ✓ To maintain the salt-free criteria, alternate viscosity modifiers can be used to achieve the desired aesthetics.
- ✓ Acrylates Copolymer used at 6.0 – 9.0% contributed to a thick, pumpable formulation.
- ✓ Pureact SFB can be used in many different rinse-off applications, including:


typical usage level is 25-40% w/w

### Pureact SFB properties

| | |
|---|---|
| Appearance at 25°C | Clear flowable liquid free from signs of impurities |
| Color, Gardner | 3 maximum |
| Solids, % | 39.0 – 42.0 |
| pH, as is at 25°C | 6.0 – 7.0 |

a Mass Balanced option is available

*sodium chloride and other organic salts typically present at levels well below 0.1%
**in 2021, compared to 2018 figures, Mintel 2022

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# foam analysis - *foam height*

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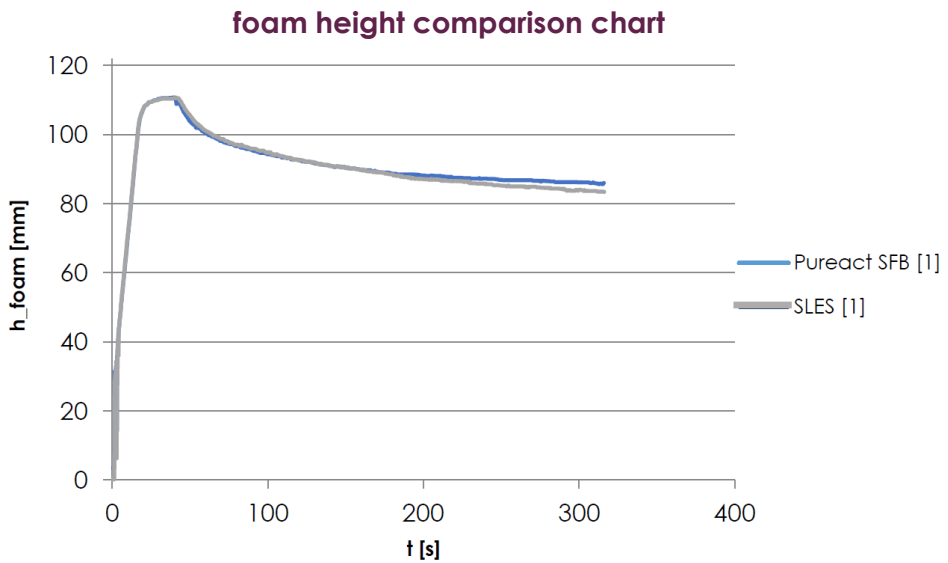
Foam height analysis was performed on 0.1% active solutions of Pureact SFB and Sodium Laureth Sulfate (2 mol) using the Krüss Dynamic Foam Analyzer. Samples were tested in duplicate and at pH of approximately 5.0. Samples were sparged with air to create the initial foam. Foam height was observed over a period of 300 seconds (5 minutes). Pureact SFB was found to have comparable flash foam height to Sodium Laureth Sulfate. Additionally, the foam decay rate was consistent between the two test samples illustrating the foam stability.

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# foam analysis - *foam structure*

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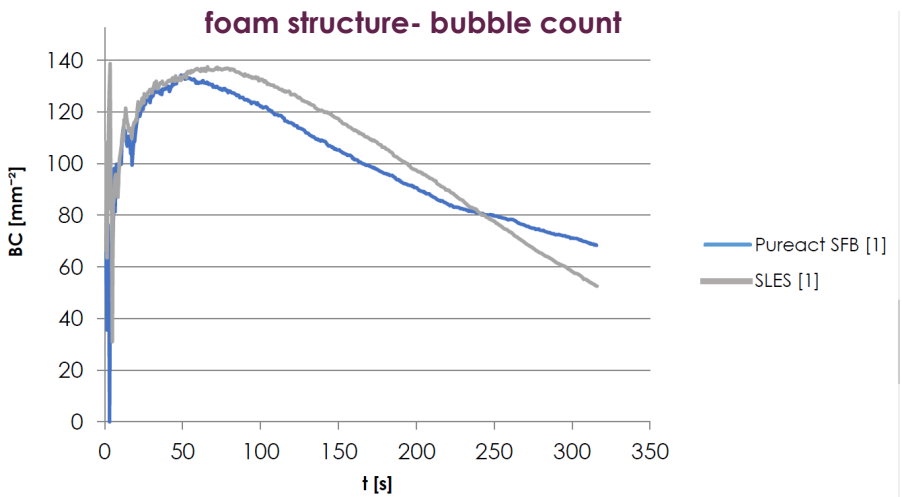
Foam Structure was also evaluated during the foam test. The parameters that are considered are the BC, Bubble Count, and MBA, Mean Bubble Area. The Bubble Count is the number of bubbles produced when the samples are sparged with air. The Mean Bubble Area is an average of the size of bubbles produced after sparging the samples. The Bubble Count (BC) is plotted in the graph and is monitored over a 300 second time period. It was observed that the Pureact SFB had a more stable foam over time in comparison to Sodium Laureth Sulfate as indicated by the higher bubble count at the end of the measurement. The Mean Bubble Area (MBA) was measured throughout the foam test and the initial and final readings are listed to the right. The data support the observation that Pureact SFB has a more stable foam resulting in smaller, compact bubbles that coalesced at a rate less than SLES over time resulting in a smaller MBA at the end of the test period.

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