

Liponate[®] SB-50

Shampoo Applications

October 2013

Liponate® SB-50

Softening & Conditioning

Description

- Water dispersible emollient
- INCI name: PEG-50 Shea Butter
- Form: liquid
- Appearance: clear to light yellow viscous liquid
- Value added lower cost ingredient

Liponate[®] SB-50

Softening & Conditioning



Liponate[®] SB-50

Softening & Conditioning

Features and Benefits

- A 50 mole ethoxylate of Shea Butter (50% in water)
- Water dispersible emollient specifically developed for aqueous based formulations
- Liquid form for ease of handling
- Can be used in both hot process and cold process applications
- Adds emolliency to surfactant based cleansing products
- Provides the softening and conditioning properties associated with Shea butter

Liponate® SB-50

Softening & Conditioning

Performance Benefits Study

- Conducted laboratory testing on a clear shampoo formula with Liponate SB-50
- Formulation was evaluated by a mixed panel study of men and women

Liponate[®] SB-50

Softening & Conditioning

Evaluation of Clear Shampoo Formulation - Hair Tress

- Design protocol was a standardize test method for the evaluation of two shampoo products on a split hair tress sample. Conducted in a laboratory setting at a sink top set up. It provided for reproducible standards of applying the shampoo, rinse off, wet combing, blow dryer/dry time and dry hair evaluation.
- 10 panelists, mixed male and female, for significant evaluation findings.
- Shampoo formulation tested vs a 'control'
 - Moisturizing Clear Shampoo with 2.5% Liponate SB-50
 - Moisturizing Clear Shampoo 'control' without Liponate[®] SB-50

Liponate® SB-50

Softening & Conditioning

Moisturizing Clear Shampoo

<u>SEQUENCE</u>	<u>PERCENT</u>	<u>INGREDIENT</u>	<u>INCI NAME</u>
1	57.70	Deionized Water	Water
1	0.10	Disodium EDTA (119)	Disodium EDTA
2	25.00	Standapol ES-2 (20)	Sodium Laureth Sulfate
2	5.00	Decyl Glucoside	Decyl Glucoside
2	8.00	Velvetex BK-35 (20)	Cocamidopropyl Betaine
2	2.50	Liponate® SB-50 (1)	PEG-50 Shea Butter
3	0.50	Panthenol (119)	Panthenol
4	1.20	Sodium Chloride (119)	Sodium Chloride
5	qs	Preservative	(Preservative)
	<u>100.00%</u>		

Liponate® SB-50

Softening & Conditioning



**Shampoo with
Liponate SB-50**

**Shampoo without
Liponate SB-50**

Liponate® SB-50

Softening & Conditioning

Panel Test Parameters:

Formulations were panel tested for evaluation on a side-by-side split hair tress. Evaluated for the following properties:

- *ease of wet combing performance (standard comb)*
- *blow dryer/dry time (medium hot setting)*
- *ease of dry combing performance*
- *less fly-away (static) performance*
- *feels more moisturized between fingertips*
- *feels more conditioned between fingertips*
- *feels smother between fingertips*

Liponate® SB-50

Softening & Conditioning

Wet combing evaluation:

- Each panelist separately combed each side of the split hair tress and rated the *ease of wet combing*.
- This was conducted as a one-on-one and not a group setting.

Results:

- Majority of panelists choose blindly the hair treated with Liponate® SB-50 shampoo as having noticeably far better ease of wet combing.
- 1 panelist chose the 'control' side.

Liponate® SB-50

Softening & Conditioning

Blow dryer/dry time:

- Both sides of the split hair tress were given equal timed exposure to the blow dryer hot air (medium hot setting).
- This was a 1 minute timed study to determine if the Liponate® SB-50 Shampoo dries faster than the 'control' shampoo.
- Each panelist rated which side of the hair tress *felt drier*. This was conducted as a one-on-one and not a group setting.

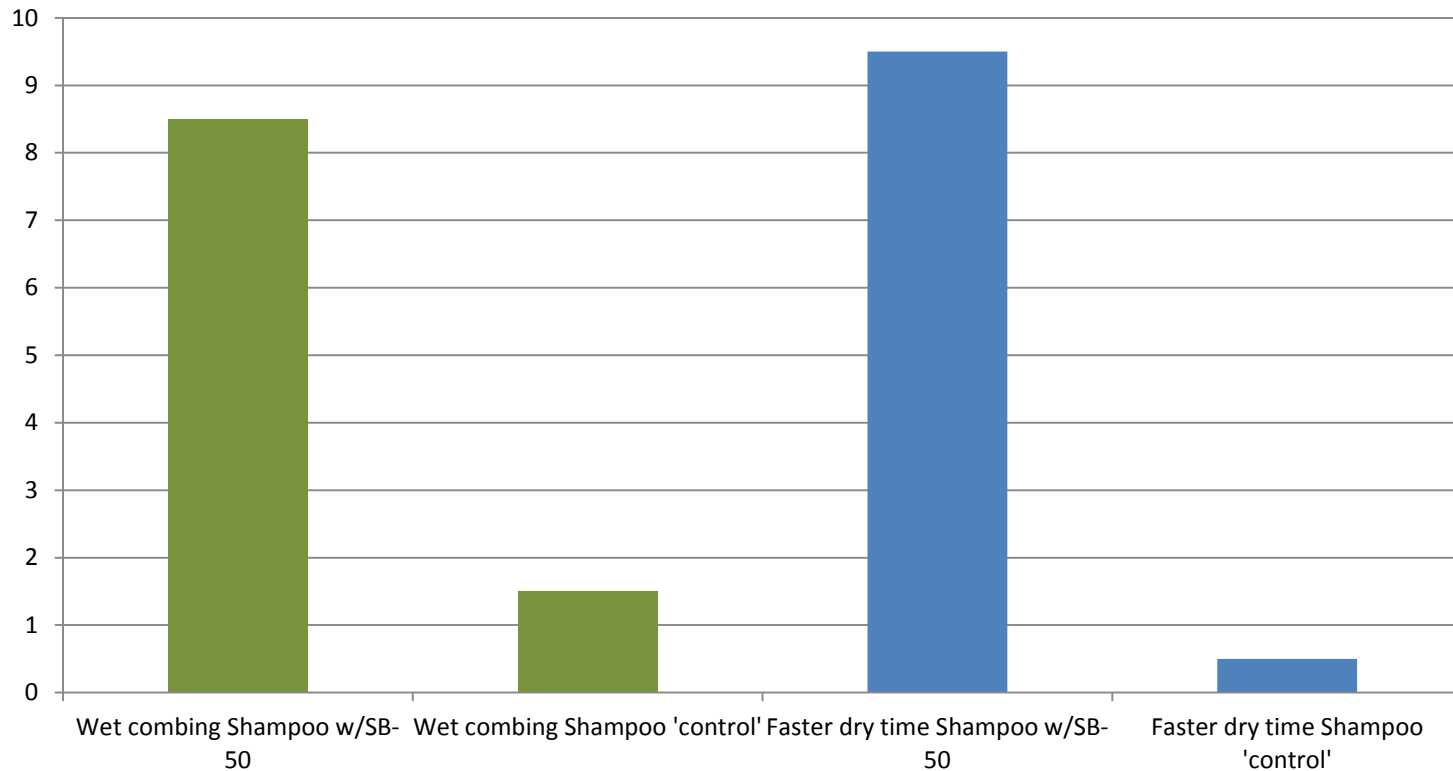
Results:

- Majority of panelists choose blindly the hair treated with Liponate® SB-50 shampoo as being less damp.
- 1 panelist chose the 'control'.



Liponate® SB-50

Softening & Conditioning



Liponate® SB-50

Softening & Conditioning

Ease of Dry Combing evaluation: (hair fully dried)

- Each panelist separately combed each side of the split hair tress and rated the *ease of dry combing*.
- This was conducted as a one-on-one and not a group setting.

Results:

- Over 50 % of the panelists choose blindly the hair treated with Liponate® SB-50 shampoo as having noticeably better ease of dry combing.
- Less than half of panelists chose the 'control' side.

Liponate® SB-50

Softening & Conditioning

Less Fly-away (static): (hair fully dried)

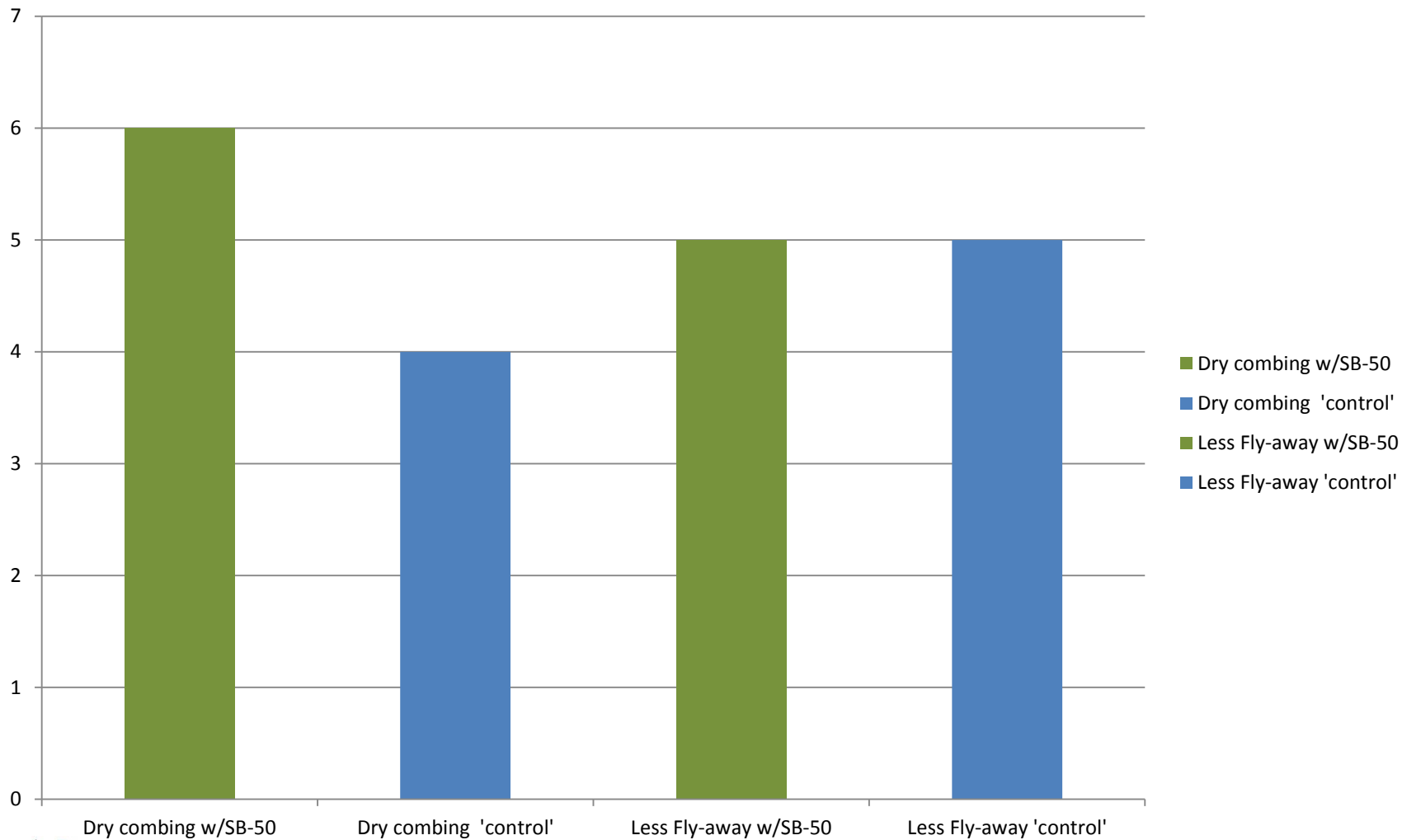
- Each panelist visually inspected the dry combed split hair tress and determined which side of the hair looked like it had less *fly-away* appearance.

Results:

- Equal number of panelists overall chose either side, so relatively no significant difference in performance.

Liponate[®] SB-50

Softening & Conditioning



Liponate® SB-50

Softening & Conditioning

Moisturized Feel: (hair fully dried)

- Each panelist felt the dry combed split hair tress with their fingertips and determined which side of the hair tress felt more *moisturized* (less dry).

Results:

- Over 50% of the panelists choose blindly the hair treated with Liponate® SB-50 shampoo as having a better moisturized feel.
- Less than half of panelists chose the 'control' side.

Liponate® SB-50

Softening & Conditioning

Conditioned Feel: (hair fully dried)

- Each panelist felt the dry combed split hair tress with their fingertips and determined which side of the hair tress had a more *conditioned* feel.

Results:

- Majority of the panelists choose blindly the hair treated with Liponate® SB-50 shampoo as having a better conditioned feel.
- 1 panelists chose the 'control' side.

Liponate[®] SB-50

Softening & Conditioning

Smoother Feel: (hair fully dried)

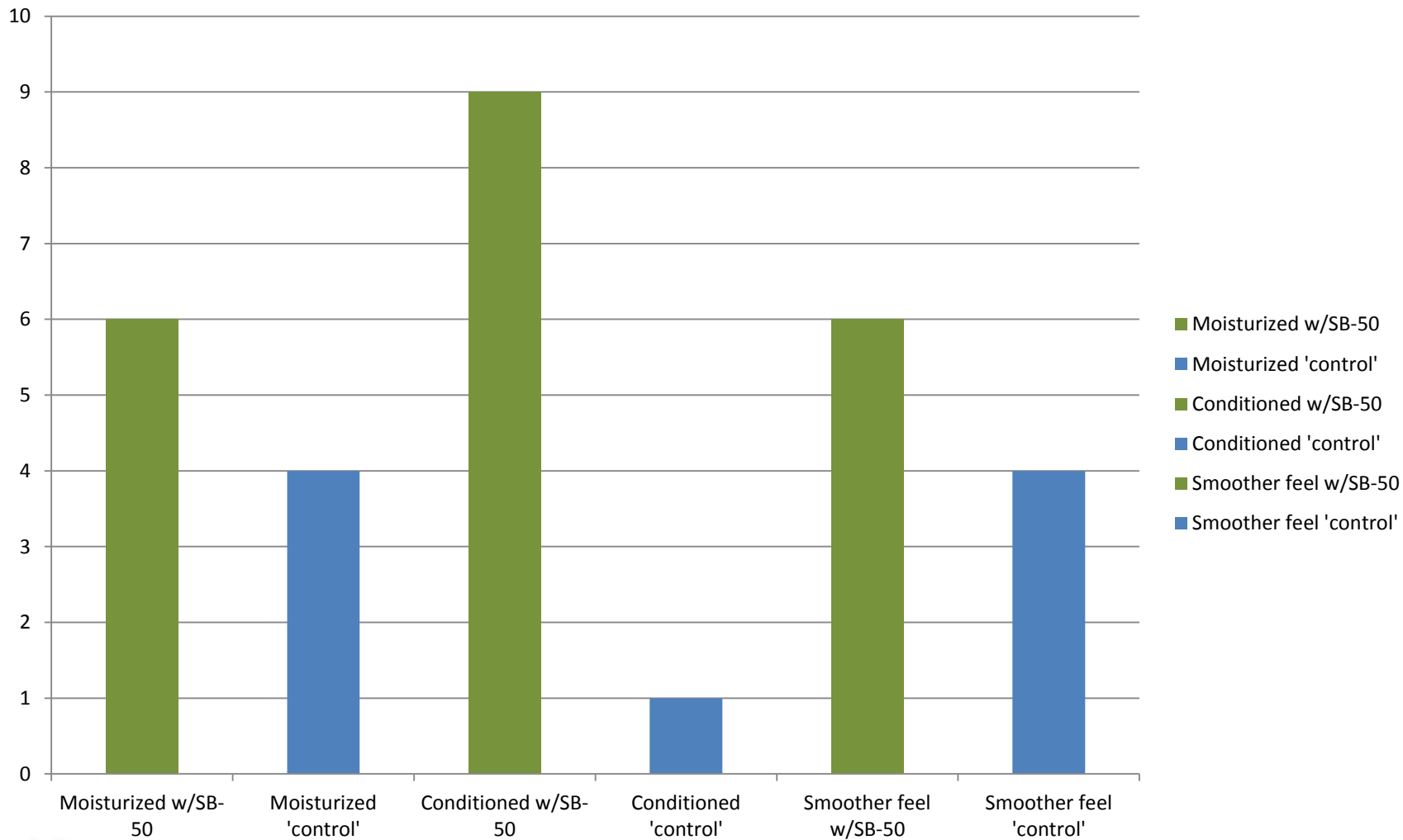
- Each panelist felt the dry combed split hair tress with their fingertips and determined which side of the hair tress felt *smoother* to the touch.

Results:

- Over 50% of the panelists choose blindly the hair treated with Liponate[®] SB-50 shampoo as having a smoother feel.
- Less than half of panelists chose the 'control' side.

Liponate® SB-50

Softening & Conditioning



Liponate® SB-50

Softening & Conditioning

Summary:

- Overall, the panelists were able to feel an improved performance benefit from the Liponate® SB-50 shampoo treatment on the hair tress.
- Based on the subjective panel test evaluation results, Liponate® SB-50 shampoo clearly showed a significant marked improvement in wet combing and blow dryer/dry time performance.
- The Liponate® SB-50 treated side showed a significant marked improvement in producing a conditioned after-feel to the hair.
- The study also showed the Liponate® SB-50 treated side produced a noticeable difference in improved dry hair combing , moisturized feel and smoother feel to the touch.

Liponate[®] SB-50:

Softening & Conditioning

Panel Test Conclusions:

- Based on the subjective panel study evaluation results, the Liponate[®] SB-50 shampoo clearly showed a marked improvement in performance when compared to the control
- Performance benefits include:
 - Clear surfactant formulations
 - Improved wet combing of the hair
 - Enhanced blow dryer/dry time
 - Conditioned feel of the feel