



SILTECH TOPICAL REPORT

2 in 1 Shampoos

July 30, 2006

Subject: 2 in 1 Shampoo

Purpose: To duplicate a very popular 2 in 1 Shampoo using materials from Siltech.

The samples evaluated are:

1. **Siltech J-208-1B in a shampoo base**
2. **Silplex J2-S in a shampoo base**
3. **Siltech J-208-1B and CS-1 in a shampoo base**
4. **2 in 1 Shampoo (Lot# ECO29)**
5. **Shampoo base JHSCS-84-1 (Control)**



Shampoo Base Formulation: JHSCS-84-1

Water Phase A:	%
Water, Deionized	20.00
Ultraz 10	0.50
 Water Phase B:	
Water, Deionized	15.00
Guar C261N	1.50
 Surfactant Phase:	
Water, Deionized	qs
Standapol ES-1*	30.00
Dehyton MC*	7.50
Cetyl Alcohol	3.00
Lanette E*	2.00
Glycerin	2.00
Siltech J-208-1B**	see below
Silplex J2-S**	see below
Siltech J-208-1B and CS-1**	see below
 Preservative Phase:	
Germaben II	1.00
Sodium Chloride (if needed)	qs
Citric Acid (25% soln)	qs
pH: 6.3 to 6.8	

Specifications:

pH: all samples ranged from 6.30 to 6.80

Color: Initially yellowish in color due to Guar. Overnight all samples became off-white and with a pearlescent appearance.

Appearance: Opaque, off-white flowable liquid

Viscosity: 3500 to 6000 cps

**All levels of Siltech materials were evaluated in the JHSCS-84-1 Shampoo base at 1.25%.

* All Cognis materials.



Foam Heights:

Standard 2 in 1 Shampoo: 425ml – 100ml = 325ml Tight and tiny uniform bubbles.

Shampoo base JHSCS-84-1: 450ml – 100ml = 350ml Uniform bubbles.

Shampoo JHSCS-88-1 (1.25% J-208-1B): 450ml – 100ml = 350ml tight bubbles.

Shampoo JHSCS-89-1 (1.25% Silplex J2-S): 460ml – 100ml = 360ml Uniform bubbles throughout.

Shampoo JHSCS-90-1(1.25% J-208-1B & CS-1): 450ml – 100ml = 350ml Uniform tight bubbles.

Hair evaluation:

All products were evaluated on 10 inch Virgin Brown Hair. Two x 2gm. swatches were used for each material tested, all from the same lot. All swatches were wet with 25°C water and one gram of test material was used for each swatch. Swatches were washed and then rinsed for at least one minute per swatch. Wet Comb Evaluation was then performed. No blow drying of hair was done. All swatches air-dried then the Dry Comb Evaluation was performed once hair was completely dry.

*Scale used is 1 to 5, 5 being the best. Used for Wet and Dry Combing



WET COMBING EVALUATION						
	CONTROL WATER ONLY	SHAMPOO BASE JHSCS-84-1 (CONTROL)	2 IN 1 SHAMPOO	SHAMPOO J-208-1B at 1.25% JHSCS-88-1	SHAMPOO Silplex J2-S At 1.25% JHSCS-89-1	SHAMPOO J-208-1B&CS-1 At 1.25% JHSCS-90-1
Wet comb	1	1.5	4	3.5	4	4
Rinse off	3	4	2	3.5	4	4
Clean feel (squeaky clean)	2	3	2	2	3.5	3.5
Shine	1	1	4	2	3.5	3.5
Residual feel	3	3	1	2.5	3	3
AVERAGE	2.00	2.50	2.60	2.70	3.60	3.60

DRY COMBING EVALUATION						
	CONTROL WATER ONLY	SHAMPOO BASE JHSCS-84-1 (CONTROL)	2 IN 1 SHAMPOO	SHAMPOO J-208-1B at 1.25% JHSCS-88-1	SHAMPOO Silplex J2-S At 1.25% JHSCS-89-1	SHAMPOO J-208-1B&CS-1 At 1.25% JHSCS-90-1
Dry comb	3	3.5	4	4	4	4
Feel	2	3	3.5	4	4	4
Clean feel/look	2	3	3	3	3	3.5
Shine	1	2.5	4	3	3	3.5
Fullness/manageability	1	3	3	3	3.5	3.5
Flyaway	1	3	2.5	2	2	3.5
Static	2	3	2.5	3	3	3.0
Residual feel	0	3	2	2.5	2.5	3.0
AVERAGE	1.50	3.00	3.06	3.06	3.13	3.50



Conclusion:

The duplication of the standard 2 in 1 Shampoo was formulated using the materials listed on the bottle after suitable analytical work was done. The differences were the conditioning materials used in the standard product, which was replaced by using Siltech materials. All the Siltech materials were used at a 1.25% level which turned out to be ideal for this evaluation.

In the Wet and Dry Combing Evaluation it appears that the shampoo using Siltech J-208-1B performed in a similar fashion to the standard product. What was most noted during the evaluation is that these two products had the same residual feel which was a feel of being slightly more coated. This was felt during the wet and dry comb. The Siltech product was able to duplicate the performance and perceived feel of the Fructis product.

In my opinion, if your customer wishes to have very close results to the standard product, they should use the Siltech J-208-1B at 1.25%. Should the customer wish to enhance the feel and performance of this product, without a doubt substituting Siltech J-208-1B & CS-1 in place of J-208-1B will give them outstanding results.

If it is felt that the current shampoo is slightly too thick, the only materials to adjust to the ideal viscosity would be the Ultrez 10 and/or the Guar C-261N. The changes required would be minimal and should not affect the feel or the performance of the final product.

