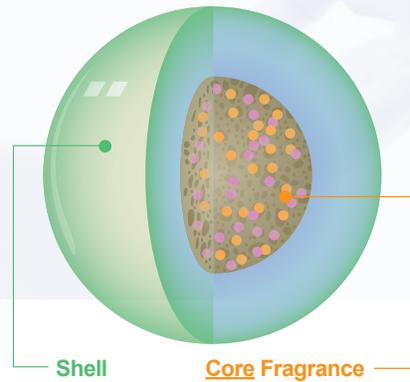


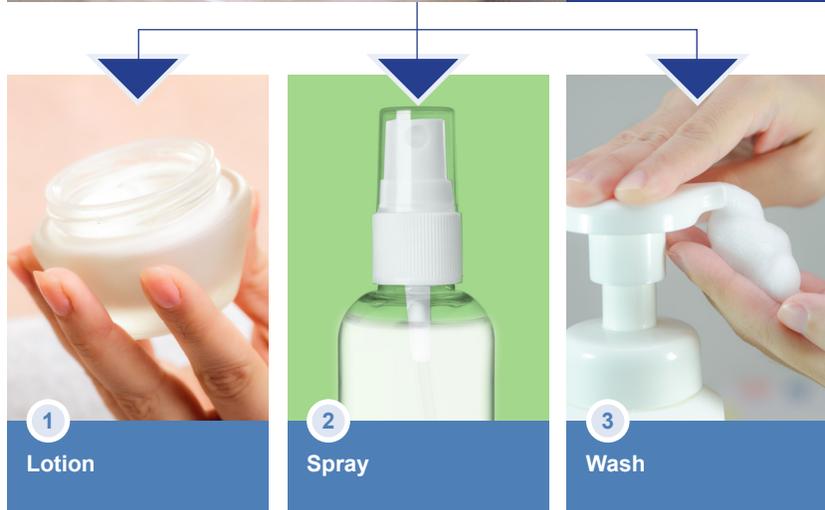
HydroSal® 1 Fragrance (HS 1 FR)

A time-release technology that provides extended fragrance release from water-based products.



HydroSal® (Figure 1) is composed of a porous, hydrophobic core infused with fragrance. The outer shell is composed of a polymer that acts as a diffusion barrier to modulate the release from the core. HS 1 FR displays the product.

Figure 1: Structure of HS 1 FR. The fragrance is entrapped within the core and the system is suspended in water.




TIME RELEASE PRODUCT

UNIQUE FEATURES

- 1 **LONGER-LASTING FRAGRANCES**
for higher consumer satisfaction.
- 2 **WATER-TRIGGERED "BLOOM"**
Water-activated release of fragrance.
- 3 **FORMULATION-READY**
Create milky products with multiple fragrance options.

LONG-LASTING FRAGRANCE SENSATION

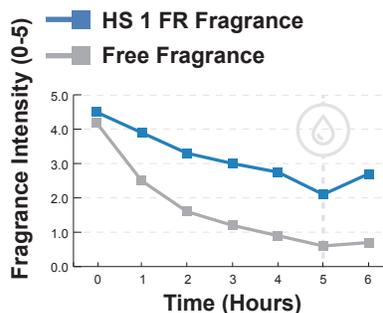


Figure 2: HS 1 FR provides higher aroma intensity versus the free (non-encapsulated) fragrance. The fragrance was at a 2% level in a spray product. At the 5-hour mark, the product was exposed to water and showed a burst in odor intensity.

WATER-TRIGGERED "BLOOM"

HS 1 FR: 4x Increase in Intensity from Dry to Wet

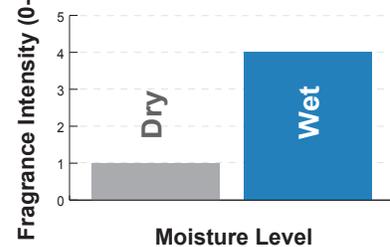


Figure 3: Effect of moisture on fragrance intensity of HS 1 FR in spray application. The intensity of the bloom depends on properties of the fragrance.

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MALODOR REDUCTION

A study was performed to measure the effectiveness of HS 1 FR in masking malodor. A combination of onion extract and ammonia was used, and consumers were asked to rank the malodor intensity (Figure 4).

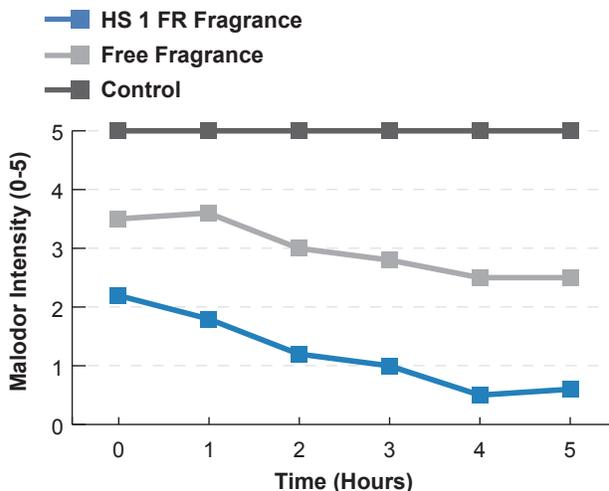


Figure 6: HS 1 FR reduces malodor over 2x better than free fragrance.

FORMULATION

Hair Repair Shampoo #11415-102

Ingredients	(W/W %)
HydroSal® Fragrance	6
Salvona Spray Key #5016	10
Preservative	1
DI Water	qs

TECHNICAL DATA

Appearance @ 20°C	Opaque fluid
Applications	Suitable for water-based applications such as sprays, creams, and lotions
Color	White
Odor	Typical to fragrance used
pH (1 % solution)	4.0 ± 6.0
Shelf Life (months)	18
Usage Level (wt%)	1-5
Storage (°C)	Closed container at 12-32°