

STEPAN-MILD® L3

Celebrating sensoriality in every drop

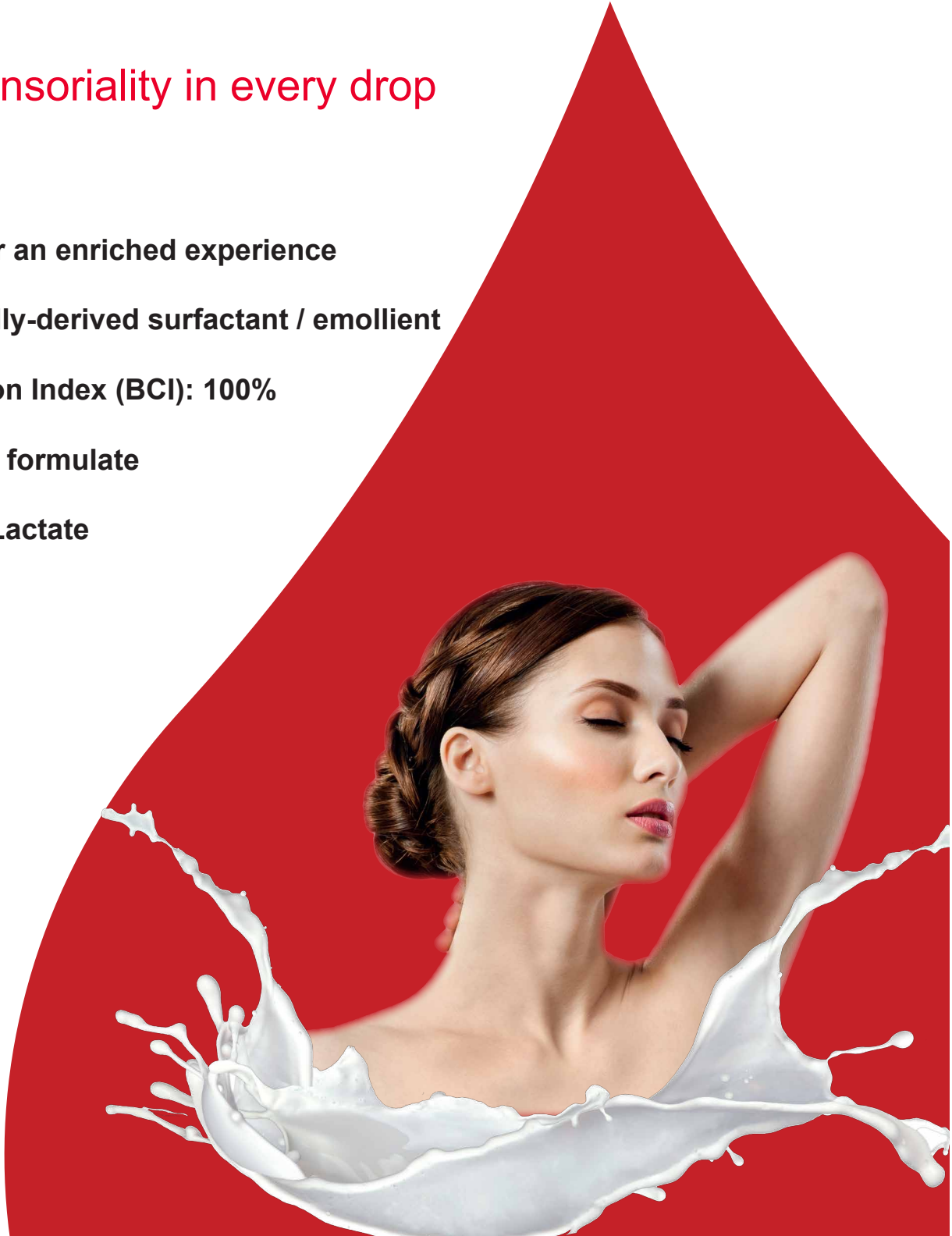
Sensory benefits for an enriched experience

100% active, naturally-derived surfactant / emollient

Biorenewable Carbon Index (BCI): 100%

Clear liquid, easy to formulate

INCI: Lauryl Lactyl Lactate



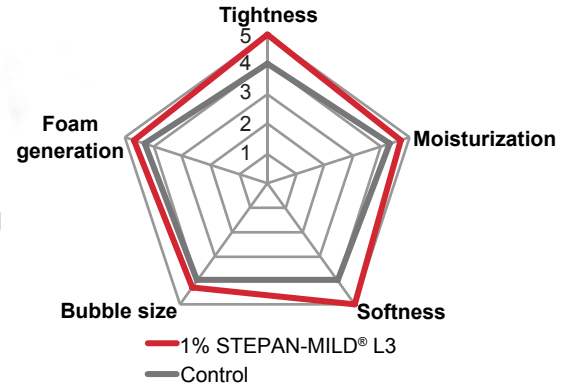
Hygiene formulations: the path to wellness

Foam texture and skin after-feel

Panelist hand wash test and skin after-feel evaluation

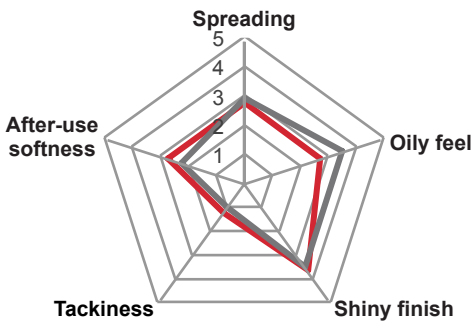
With just 1% addition of STEPAN-MILD® L3 to a Moisturizing Body Wash (control), the foam is denser and deliciously creamy.

Real sensory benefits perceived after use include soft and supple skin (no “drying” effect).

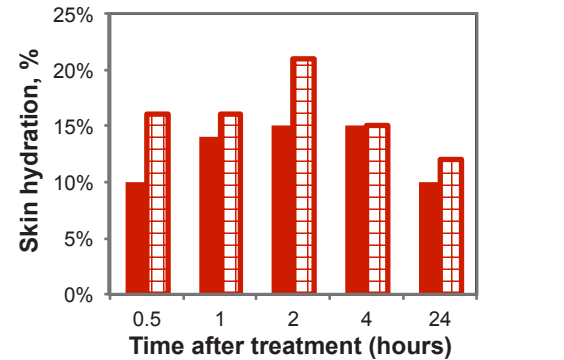


Tightness: 1 = very tight 5 = not tight
 Moisturization: 1 = very dry 5 = not dry
 Foam generation: 1 = difficult 5 = easy
 Softness: 1 = rough 5 = soft
 Bubble size: 1 = light/loose 5 = rich/creamy

Skin hydration



— STEPAN-MILD® L3
 — NEOBEE® M5 Cosmetic (Caprylic/Capric Triglycerides)
 1 = worst 5 = best

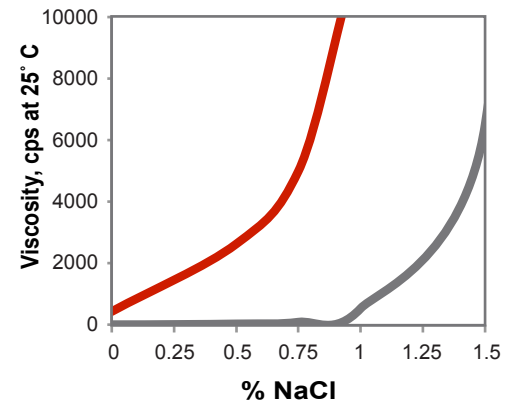


Test conducted by independent testing laboratory: One treatment, Comeometer® measurement, 11 panelists

STEPAN-MILD® L3 is a surfactant with emollient properties that is easily formulated into Personal Care products, offering a similar experience to emollients like NEOBEE® M5 Cosmetic. One application of STEPAN-MILD® L3 also significantly improves hydration compared to untreated skin over 24 hours.

Viscosity building boost

STEPAN-MILD® L3 helps achieve higher viscosities with less salt.



— 12% actives 2:1 SLES/CAPB+1% STEPAN-MILD® L3
 — 12% actives 2:1 SLES/CAPB

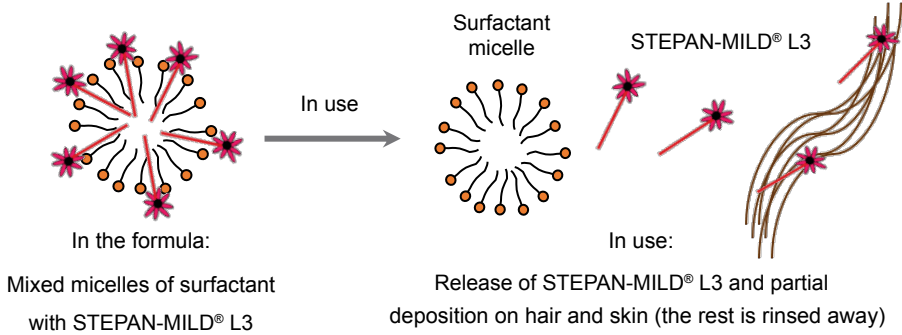
SLES: Sodium Laureth Sulfate
 CAPB: Cocamidopropyl Betaine

Haircare: a natural alternative to silicones

Conditioning shampoo

Panelist salon half-head test

Theoretical deposition model of STEPAN-MILD® L3 on hair:



Formula	With Guar	Without Guar
	Active, %	
STEOL® CS-130 (SLES-1)	12	12
AMPHOSOL® HCG (CAPB)	3	3
Conditioning agent (Silicone or STEPAN-MILD® L3)	1	1
Carbomer	0.4	0.4
Cationic guar	0.2	0
Water	q.s. to 100	

Results from 10 panelists: STEPAN-MILD® L3 vs. silicone

Without the addition of cationic guar

Small particle size silicone replacement



STEPAN-MILD® L3 performance key to silicone



Small particle size: <1 micron
Large particle size: 30-50 microns

Without the addition of cationic guar

Large particle size silicone replacement



STEPAN-MILD® L3 shows comparable performance to both small and large particle size silicone.

With the addition of cationic guar

Small particle size silicone enhancement



STEPAN-MILD® L3 in the presence of cationic guar and small particle size silicone enhances the conditioning when compared to the system without STEPAN-MILD® L3.

(Formula with 1% small particle size silicone+1% STEPAN-MILD® L3 vs. Formula with 1% small particle size silicone.)

A little inspiration

Hair Conditioner with STEPAN-MILD® L3 (No. 1148)

Ingredients	% by weight
Deionized Water	q.s. to 100
Hydroxypropyl Starch Phosphate	3.0
STEPANQUAT® ML (Quaternium-82)	2.0
Cetyl Alcohol	2.0
Stearyl Alcohol	2.0
STEPAN-MILD® L3 (Lauryl Lactyl Lactate)	2.0
Potassium Chloride	0.5
Preservative, Dye, Fragrance & pH adjuster	q.s.

Naturally-Derived, Sulfate-Free Moisturizing Shampoo and Body Wash (No. 1119)

Ingredients	% by weight
Deionized Water	q.s. to 100
STEPAN-MILD® LSB (Sodium Lauryl Sulfoacetate and Disodium Laureth Sulfosuccinate)	40.0
AMPHOSOL® CS-50 (Cocamidopropyl Hydroxysultaine)	6.0
STEPAN-MILD® GCC (Glyceryl Caprylate/Caprates)	0.5
STEPAN-MILD® L3 (Lauryl Lactyl Lactate)	0.5
Panthenol	0.5
Sodium Chloride	q.s.
Preservative, Dye, Fragrance & pH adjuster	q.s.

Skin Lotion (No. 1068)

Ingredients	% by weight
Deionized Water	q.s. to 100
Steareth-20	40.0
STEPAN-MILD® L3 (Lauryl Lactyl Lactate)	6.0
Cetyl Alcohol	0.5
Glyceryl Sterate	0.5
Preservative, Dye, Fragrance & pH adjuster	q.s.

For technical assistance, contact U.S. Technical Service at 1-800-745-7837 or techserv@stepan.com