



# DANOX SLL

**Sulfate & PEG-free  
Sophisticated Simplicity**

INCI: Lauryl Hydroxysultaine, Cocamidopropyl Hydroxysultaine, Sodium Lauroyl Lactylate

**DANOX SLL** is an optimized and patented blend of a semi-solid anionic and two amphoteric surfactants. This pourable mixture is easy to handle and allows cold-process formulation.

## PRODUCT PROFILE

Character	Anionic, amphoteric
Appearance at 20°C	Clear viscous liquid
Dry matter (%)	45 - 50%
Active Matter (%)	Approx. 40%
pH (as it is)	5.5 – 6.5
Preservative	Self-preserved

## SUSTAINABLE ATTRIBUTES

- 89% NOC (ISO 16128)
- Readily biodegradable
- RSPO MB certified
- Vegan certified

## BENEFITS

- Easy to handle & cold process
- Self-thickening at pH> 6
- Dermo protection
- Luxury foam
- Extremely mild

## APPLICATION

**DANOX SLL** is especially recommended for sensitive skin body washes, but also for face cleansers, shampoos and baby care products.

### Recommended Dosage

Main surfactant: 20 – 50%

Co-surfactant: 10 – 20%

### Inventories

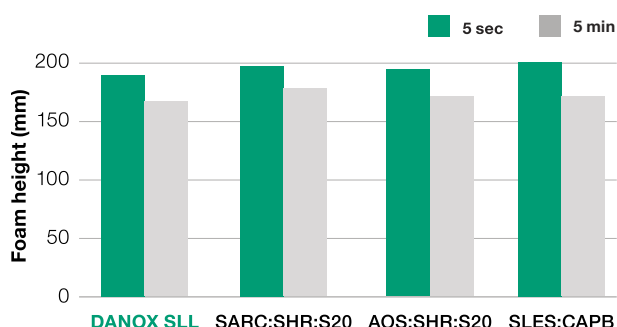
EU (REACH), IECIC (Existing Cosmetic Ingredients-CHINA)

## FOAMING PROPERTIES

**DANOX SLL** provides exceptional foam volume, comparable to other surfactant systems, within a pH range of 5.5 to 6.5. The resulting foam consists of smaller micro-bubbles, delivering a pleasant and luxurious sensation.

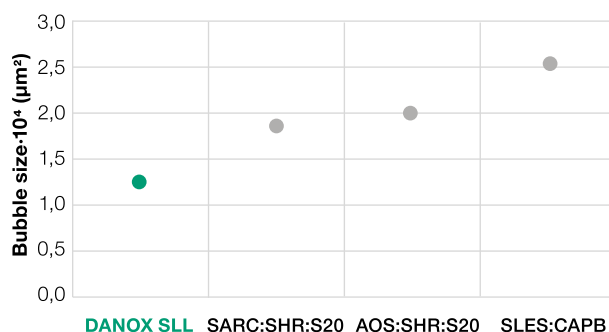
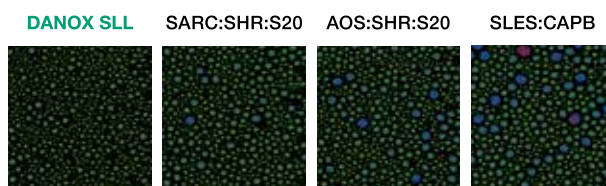
### Foam volume and stability over the time

Ross Miles Test



### Bubble size – Foam Quality

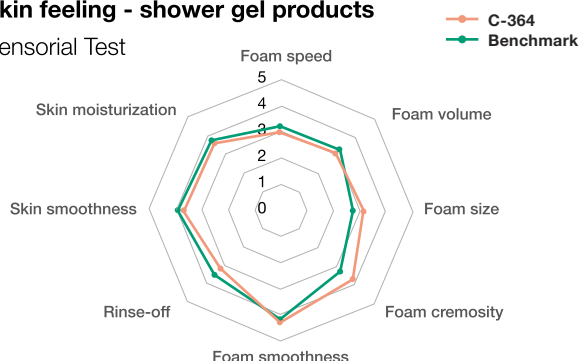
KRUSS Dynamic Foam Analyzer





## Skin feeling - shower gel products

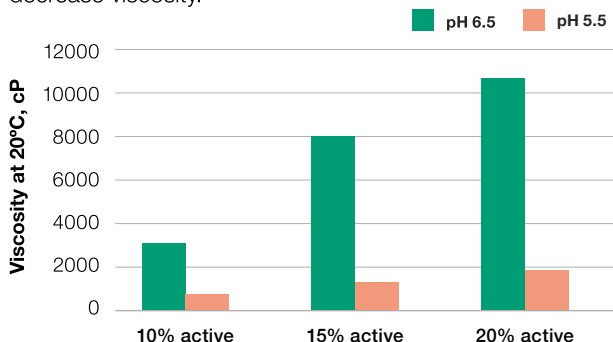
Sensorial Test



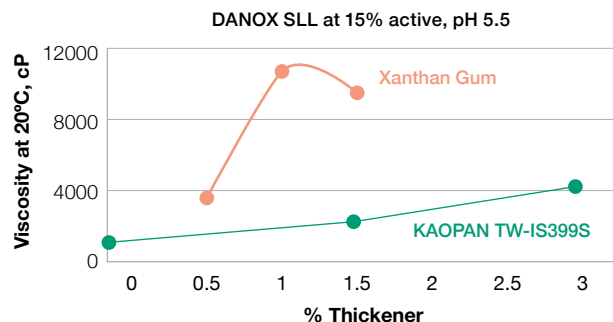
**DANOX SLL** exhibits an outstanding sensorial profile compared to market benchmark. The simplicity of the formula containing **DANOX SLL** confirms its excellent foaming performance, outperforming more complex compositions that are harder to develop and prepare.

## SELF-THICKENING ABILITY

**DANOX SLL** is a ready-to-use blend that self-thickens at pH above 6 at different concentrations. Avoid using phenoxyethanol-type preservatives as they tend to decrease viscosity.



At pH below 6 it loses the self-thickening capacity, nevertheless viscosity can be adjusted with the addition of Xanthan Gum as natural thickener. Also, PEG derivatives, as KAOPAN TW-IS399S (PEG-160 Sorbitan Triisostearate) can improve viscosity level.



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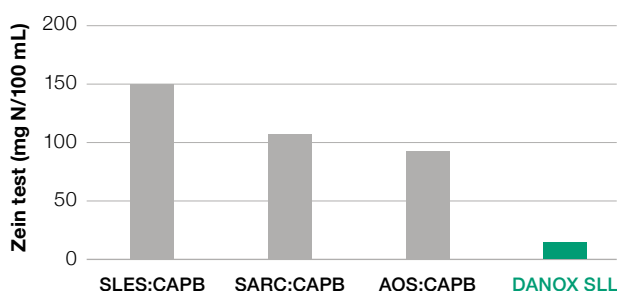
## DERMO PROTECTION

**DANOX SLL**, contains Sodium Lauroyl Lactylate, a component that helps lubricate the skin and strengthen the skin barrier, which aids in water retention. This allows products to better skin moisturization and leave a silky sensation.

The dermo protection of **DANOX SLL** has been evaluated in terms of mildness, moisturization and protection of the skin barrier.

### Mildness to the skin

**DANOX SLL** shows a very low skin irritation value (*In vitro* Zein test) compared to other surfactant mixtures.



### Moisturization & Skin Barrier

Evaluation of the moisturizing capacity (corneometer) and protective barrier function (TEWL) demonstrates that **DANOX SLL** improves moisturization and strengthens the protective barrier in sensitive skin.

### Results: Improved in % of sensitive skin volunteers that used DANOX SLL vs reference product (SLES: CAPB at 3:1 ratio)

Results	Stress phase	Recovery phase
Moisturization (Corneometer)	24% vs 17%	35% vs 24%
Protective barrier TEWL	72% vs 59%	38% vs 31%

IN-VIVO Test: 41 volunteers with sensitive skin (forearm) Measurements after washing step (Stress phase) and after 2 hours following 5 washes (Recovery phase).

Higher percentage of volunteers shows better moisturization results and better TEWL compared to reference.

AOS: Sodium C14-16 Olefin Sulfonate | SARC: Sodium Lauroyl Sarcosinate  
SLES: Sodium Laureth Sulfate | CAPB: Cocamidopropyl Betaine  
SHR: Cocamidopropyl Hydroxysultaine | S20: Lauryl Hydroxysultaine

