




BIOSURFACTANT PLATFORM	TYPE	COMPOSITION	KEY FEATURES	FOAM PROFILE	USE LEVEL
<b>ReNuva™ SL-A70</b> INCI: Glycolipids	ACID SOPHOROLIPID	 70% ACID	HLB 16-18 <b>HYDROPHILIC</b> IONIC	MEDIUM	3-5%
<b>ReNuva™ SL-L70</b> INCI: Glycolipids	LACTONE SOPHOROLIPID	 70% LACTONE	HLB 6-8 <b>LIPOPHILIC</b> NON-IONIC	LOW	3-5%
<b>ReNuva™ RL-50</b> INCI: Glycolipids	RHAMNOLIPID	 1:2.75 MONO:DI	HLB 8-9 <b>LIPOPHILIC</b> NON-IONIC	HIGH	1-5%

**NEW**



-  SOLUBILIZE
-  EMULSIFY
-  DISPERSION AID

Non-Toxic & COSMOS Cytokine-Stimulating Sustainable  
 100% Biodegradable Non-GMO & Vegan Safety Testing Data



Engineered exclusively for beauty care



MOISTURIZING CLEANSERS



ALCOHOL-FREE FRAGRANCE MISTS



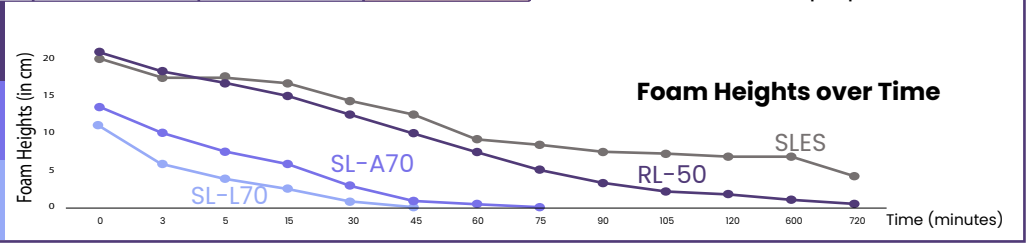
ORAL CARE & MOUTHWASH



WIPES & AMMENITIES

Special Features	ReNuva™ SL-A70	ReNuva™ SL-L70	ReNuva™ RL-50	Shared Features (A70, L70, RL-50)
Foam Profile	Medium	Low	High	Unrivaled Mildness
Acne & Dandruff Control	●	●	●	Excellent Cleanser & Solubilizer
Anti-Inflammatory Properties	●	●	●	ISO 16128 NOI = 1, (100% Natural)
Bacteriacide Preservative Booster	●	●	●	Developed Naturally via Biotechnology
Bacteriostasis Preservation Control	●	●	●	
Moisturization & Sebum Control	●	●	Moisturization	CMC 20-300x Lower Than Standard Amphiphile

- RL50** Rich Dense foam profile  
Best for: Hair care, Body care, Hand wash, facial cleanser
- A70** Medium foam profile  
Best for: Foam Cleansers & other moderate foam-based applications
- L70** Minimal foam profile  
Best for: Toners, micellar water, and other low-foam cleansers



## Cleansing

- 1.) L'OREAL WATERPROOF MASCARA APPLIED TO SKIN & ALLOWED 15 MINUTES TO DRY
- 2.) COTTON PADS WERE DIPPED & ALLOWED TO SOAK UP TO 5 GRAM OF MATERIAL A, B, C

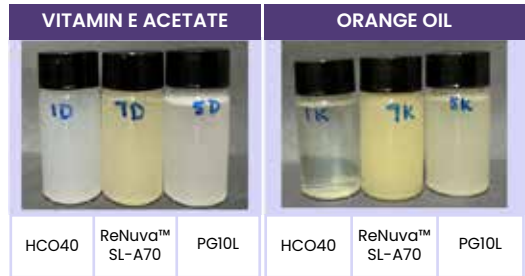


INITIAL      FIRST SET OF WIPES      FINAL SET OF WIPES

- A. COMMERCIAL MAKE-UP REMOVER
- B. COMMERCIAL MAKE-UP REOVER + 10% RENUVA LIPIDS
- C. 10% RENUVA LIPIDS + 90% H<sub>2</sub>O

## Solubility

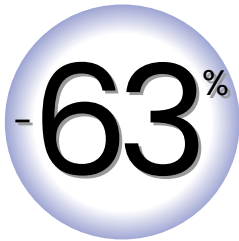
SOLUBULIZES A WIDE RANGE OF ESSENTIAL OILS & FRAGRANCES COMPARATIVELY TO HCO-40 & HCO-60



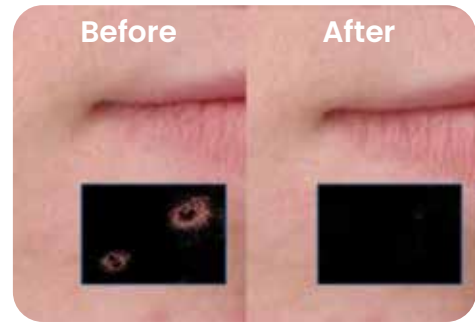
1% oil solubilized w/ 5% ReNuva™SL-A70

## Skin Health Microbiome

### LESION SIZE



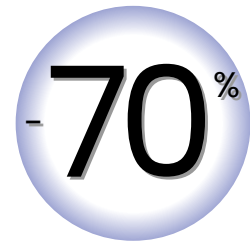
T = 2x daily, 28 days  
Wash-Off Product



## Scalp Health Anti-Dandruff



### FLAKES



T = 1x daily, 21 days  
Leave-On Hair Spray

## Preservative Boosting

### ANTI-MICROBIAL LACTONES

TSA test for Fastidious & Non Fastidious Organisms, Gram-negative & Gram-positive



FIFRA Preservative  
1.2%  
Multifunctional

Glycolipids  
5% ReNuva™  
SL-A70      5% ReNuva™  
SL-L70

Positive Control  
Bacterial Growth

**\*USP-51**

ReNuva™ SL-A70  
(Pass, Bacteriostatic)

ReNuva™ SL-L70  
(Pass, Bactericide)

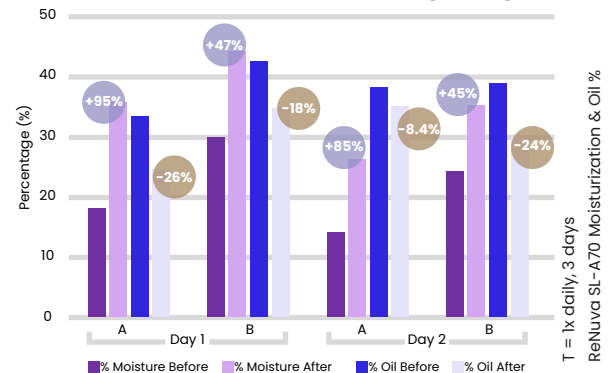
**\*\*Dip-Slides**

ReNuva™ SL-A70 (Pass)  
ReNuva™ SL-L70 (Pass)

\*10% Glycolipids  
\*\*5% Glycolipids

## Moisturizing

### TRANSEPIDERMAL WATER LOSS (TEWL)



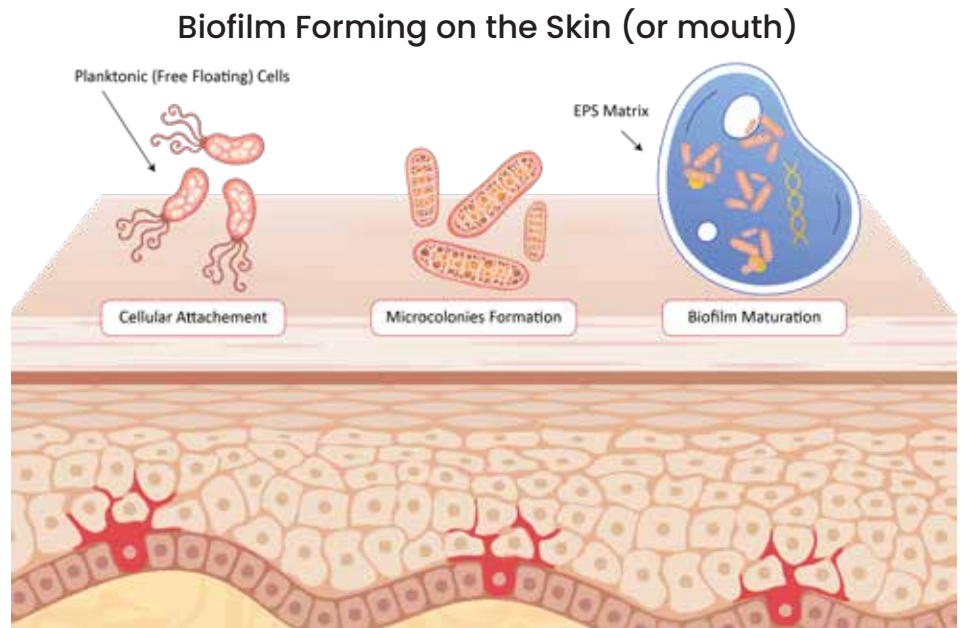
All studies conducted with 10% SL-A70 & 90% Water

## A REVIEW OF BIOFILMS

It's not just the microbe—  
it's the matrix.

Biofilms are communities encased in an EPS (Extracellular Polymer Substance) matrix that make microbes harder to remove and more tolerant to actives.

This makes it harder for your actives to remove relevant microbes related to acne on skin, scalp dandruff, and oral care.



Microbes in a Biofilm are up to

# 100–1000× More Tolerant

to actives than Planktonic (free floating) Microbes

**Biofilm reduces the efficacy of skin, scalp, and oral products.**

BioReNuva's **ReNuva™ RL-50** (Rhamnolipid), an extremely low CMC and Surface Tension biosurfactant, helps address adhesion and matrix buildup of biofilms while supporting a health skin and oral microbiome.

### Skin



Biofilms are part of normal skin but are implicated in disorders like acne, atopic dermatitis, and inflammation. They're harder to manage because the matrix shields microbes.

### Scalp



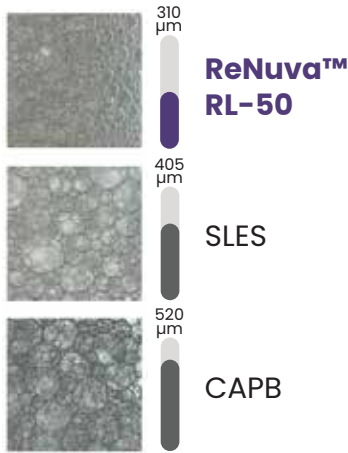
Malassezia and mixed communities can form scalp biofilms. Dysbiosis and the EPS matrix lead to persistence & flare cycles causing flaking, dandruff and itching.

### Oral

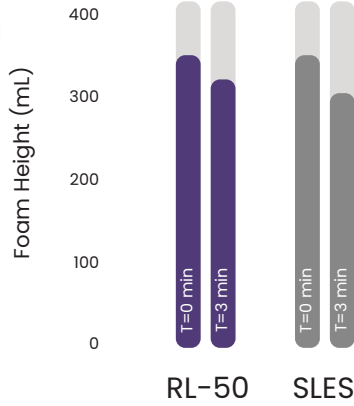


Oral biofilms (plaque) are structured EPS sites with diffusion barriers and micro-niches. The matrix limits access of actives leading to gingivitis, periodontitis and tooth decay.

## ReNuva™ RL-50

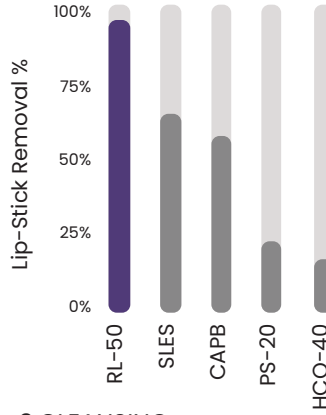


1. FOAMING

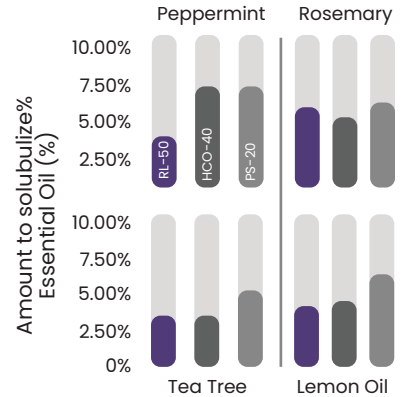


2 FOAMING

## Rhamnolipid, INCI: Glycolipids



3 CLEANSING



4 SOLUBILITY

## Check out the White Paper Data!

- Acne Protection
- Dandruff Protection
- Antimicrobial Activity
- Moisturization
- Anti-inflammatory
- Antioxidant



SOPHOROLIPIDS



RHAMNOLIPIDS