



BioReNuva[®]

Biosurfactants for Beauty Care

2026 Personal Care Formulary

ReNuva™ RL-50 (Rhamnolipids) | ReNuva™ SL-A70 (Sophorolipids)

1. Hair Care

- Scalp Reset Micellar Elixir
- Mild & Tangle-Free Kids Shampoo
- Overnight Pre-Wash Hair Balm
- ReNuva Daily Hair + Body Wash

2. Body Care

- ReNuva Ultra-Mild Body Wash
- Sebum Control Foam

3. Skin Cleansing

- Velvet Cleansing Oil
- Barrier Cream Cleanser
- Melting Cleansing Oil

CATEGORY 01

Hair Care

Scalp and strand formulations featuring ReNuva RL-50 and ReNuva SL-A70 biosurfactants for gentle cleansing, biofilm disruption, and natural moisturization.

Formulas:

Scalp Reset Micellar Elixir | Mild & Tangle-Free Kids Shampoo |
Overnight Pre-Wash Hair Balm | ReNuva Daily Hair + Body Wash



FORMULA NO. JKT-0426H

Scalp Reset Micellar Elixir

ReNuva SL-A70 + ReNuva RL-50

Phase	Ingredient	%	INCI	Function	Manufacturer
A	ReNuva™ SL-A70	2.00	Glycolipids	Biosurfactant	BioReNuva
A	ReNuva™ RL-50	4.00	Glycolipids	Biosurfactant	BioReNuva
A	Ceramide Complex	0.10	Ceramide NP (and) Ceramide AP (and) Ceramide EOP	Barrier Repair	Various
A	Water	84.60	Aqua	Solvent	Various
A	Pentylene Glycol	3.90	Pentylene Glycol	Humectant	Various
A	Glycerin	3.90	Glycerin	Humectant	Various
A	Phenoxyethanol	1.50	Phenoxyethanol	Preservative	Various
A	Lactic Acid (10%)	q.s.	Lactic Acid	pH Adjuster	CalChem

A lightweight, clear micellar scalp treatment combining both ReNuva SL-A70 and RL-50 for dual glycolipid cleansing and scalp microbiome support. The ceramide complex reinforces the scalp barrier while pentylene glycol and glycerin provide lasting hydration. Ideal for sensitive or irritation-prone scalps.

<p>Appearance</p> <p>Clear liquid. Mildly viscous. Soft skin feel.</p>	<p>pH</p> <p>Target: 4.5–5.5 (Lactic Acid 10%)</p>	<p>Viscosity</p> <p>Target: 500–1500 mPa·s</p>
<p>Procedure</p> <p>Combine all Phase A at room temperature. Mix at 450 RPM until homogeneous. Adjust pH with Lactic Acid (10%) to target.</p>	<p>Stability Test</p> <p>4 wks @ 40°C/50°C · Freeze-thaw ×3 · Clarity check T0 & T4w</p>	

FORMULA NO. JKT-0426C

Mild & Tangle-Free Kids Shampoo

ReNuva RL-50

Phase	Ingredient	%	INCI	Function	Manufacturer
A	Suga® Det L	8.80	Lauryl Glucoside	Surfactant	Colonial Chem
A	Calchem BTMS-25	0.50	Behentrimonium Methosulfate (and) Cetearyl Alcohol	Conditioning Emulsifier	CalChem
A	Antil SPA 80 MB	1.00	Lauryl Glucoside (and) Polyglyceryl-2 Dipolyhydroxystearate	Co-surfactant	Evonik
A	Water	53.00	Aqua	Solvent	Various
B	ReNuva™ RL-50	3.60	Glycolipids	Biosurfactant	BioReNuva
B	Cola® Teric 1C	12.50	Sodium Cocoamphoacetate	Amphoteric Surfactant	Colonial Chem
B	Cola® Teric COAB	14.90	Cocamidopropyl Betaine	Amphoteric Surfactant	Colonial Chem
B	Citric Acid (30%)	3.00	Citric Acid	pH Adjuster	Various
B	Phenoxyethanol	1.50	Phenoxyethanol	Preservative	Various
B	Sodium Chloride	1.20	Sodium Chloride	Viscosity Modifier	Various

A high-clarity gel shampoo built on a sulfate-free surfactant base with ReNuva RL-50 for deep follicular cleansing. Phase A is heated to 60°C for homogenization before Phase B addition. The system thickens upon pH adjustment and cooling, delivering a luxurious gel texture with a rich lather.

<p>Appearance</p> <p>Clear to slightly hazy gel. Rich, creamy lather. Smooth rinse-off.</p>	<p>Procedure</p> <p>Heat Phase A to 60°C. Add Phase B under 450 RPM. Cool to 40°C, adjust pH with Citric Acid (30%), add NaCl for viscosity.</p>	<p>Viscosity</p> <p>Target: 3200 mPa·s (Brookfield sp.4, 20 RPM, 25°C)</p>
<p>pH</p> <p>Target: 5.9 (Citric Acid 30%)</p>	<p>Stability Test</p> <p>4 wks @ 40°C/50°C · Freeze-thaw ×3 · Viscosity check T0 & T4w</p>	

FORMULA NO. JKT-0426I

Overnight Pre-Wash Hair Balm

ReNuva RL-50

Phase	Ingredient	%	INCI	Function	Manufacturer
A	Glycine Soja Oil	64.00	Glycine Soja (Soybean) Oil	Emollient	Various
A	BIKIRA® Baobab Oil	3.00	Adansonia Digitata Seed Oil	Emollient	AE Chemie
A	Biochemica® Shea Butter	3.00	Butyrospermum Parkii (Shea) Butter	Emollient	Hallstar
A	Cetyl Palmitate	2.50	Cetyl Palmitate	Emollient/Thickener	Various
A	Hydrogenated Cottonseed Oil	11.00	Hydrogenated Gossypium Herbaceum (Cotton) Seed Oil	Structuring Agent	Various
A	Polyglyceryl-4 Isostearate	2.50	Polyglyceryl-4 Isostearate	Emulsifier	Various
A	Isoamyl Laurate	1.50	Isoamyl Laurate	Emollient	Various
A	Calchem BTMS-25	2.50	Behentrimonium Methosulfate (and) Cetearyl Alcohol	Conditioning Emulsifier	CalChem
A	ReNuva™ RL-50	2.00	Glycolipids	Biosurfactant	BioReNuva
A	Polyglyceryl-3 Caprate	4.00	Polyglyceryl-3 Caprate	Emulsifier	Various
A	Cellulose	2.00	Cellulose	Thickener	Various
A	Glyceryl Caprate	1.00	Glyceryl Caprate	Co-emulsifier	Various
A	Tocopherol	1.00	Tocopherol	Antioxidant	Various

A rich, oil-based pre-wash balm designed to deeply condition and detangle before shampooing. The soybean and baobab oil base provides intense nourishment, while ReNuva RL-50 ensures the balm washes off cleanly with lather.

Appearance Yellowish balm. Softens on contact with skin and hair. Washes off cleanly with lather.	Procedure Melt all Phase A at 80°C. Homogenize at 10,000 RPM until uniform. Pour immediately into containers.	Viscosity Solid balm at RT. Softens on contact with skin/hair.	pH N/A — anhydrous oil-phase formula
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Stability Test 4 wks @ 40°C · Freeze-thaw x3 · Oil separation & texture check

FORMULA NO. JKT-0426F

ReNuva Daily Hair + Body Wash

ReNuva RL-50

Phase	Ingredient	%	INCI	Function	Manufacturer
A	ReNuva™ RL-50	2.30	Glycolipids	Biosurfactant	BioReNuva
A	Isoamyl Laurate	0.50	Isoamyl Laurate	Emollient	Various
A	Suga®Det L	9.70	Lauryl Glucoside	Surfactant	Colonial Chem
A	Suga®Det CG	20.00	Coco-Glucoside	Surfactant	Colonial Chem
A	Colonial SCS Needles	5.50	Sodium Coco-Sulfate	Surfactant	Colonial Chem
A	Water	50.00	Aqua	Solvent	Various
B	Glycerin	9.00	Glycerin	Humectant	Various
B	Potassium Sorbate	1.80	Potassium Sorbate	Preservative	Various
B	SorbiThix L100	1.30	Sorbeth-230 Tetraoleate (and) Decyl Glucoside (and) Sorbitan Laurate	Thickener	AppleChem

A versatile, glucoside-based hair and body wash with ReNuva RL-50. The sulfate-free primary surfactant system of lauryl glucoside and coco-glucoside provides gentle yet effective cleansing, while sodium coco-sulfate adds flash foam. Mix Phase A at 60°C, then blend in Phase B at 450 RPM. *Appearance: Viscous, slightly tinted liquid. Great foaming and lather.*

Appearance Viscous, clear liquid. Great foaming and lather.	Procedure Mix Phase B in a separate vessel at 60 °C Add Phase B to Phase A under 450 RPM mixing. Adjust pH if needed.	Viscosity Target: 2000 mPa·s (Brookfield sp.4, 20 RPM, 25°C)	pH Target: 5.2 (Potassium Sorbate/Glycerin system)
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Stability Test
4 wks @ 40°C/50°C · Freeze-thaw ×3 · Viscosity & pH check T0 & T4w

CATEGORY 02

Body Care

Gentle, high-foam body cleansers with ReNuva RL-50 for effective cleansing without barrier disruption.

Formulas:

ReNuva Ultra-Mild Body Wash | Sebum Control Foam



FORMULA NO. JKT-0426E

ReNuva Ultra-Mild Body Wash

ReNuva RL-50

Phase	Ingredient	%	INCI	Function	Manufacturer
A	ReNuva™ RL-50	4.09	Glycolipids	Biosurfactant	BioReNuva
A	Polyglyceryl-2 Sesquicaprylate	0.50	Polyglyceryl-2 Sesquicaprylate	Emulsifier	Various
A	Antil SPA 80 MB	1.00	Lauryl Glucoside (and) Polyglyceryl-2 Dipolyhydroxystearate	Co-surfactant	Evonik
A	Water	61.00	Aqua	Solvent	Various
A	SorbiThix L100	1.50	Sorbeth-230 Tetraoleate (and) Decyl Glucoside (and) Sorbitan Laurate	Thickener	AppleChem
A	Disodium Lauryl Sulfosuccinate	1.50	Disodium Lauryl Sulfosuccinate	Mild Surfactant	Various
A	Cola®Teric COAB	17.80	Cocamidopropyl Betaine	Amphoteric Surfactant	Colonial Chem
A	Cola®Teric 1C	10.90	Sodium Cocoamphoacetate	Amphoteric Surfactant	Colonial Chem
A	CalChem PS-300	1.00	Potassium Sorbate	Preservative	CalChem

A mild, high-foam body wash featuring ReNuva RL-50 at nearly 5% for superior cleansing and skin-feel. The amphoteric surfactant system of CAPB and sodium cocoamphoacetate ensures rich lather while maintaining gentle cleansing suitable for sensitive skin. Mix Phase A under 60°C with stand mixer. pH adjusted with citric acid 50%.

Appearance Clear to slightly hazy liquid. Dense, creamy foam. Smooth skin feel after rinse.	Procedure Combine all Phase A at room temp or up to 40°C. Mix at 450 RPM. Adjust pH with Citric Acid (50%).	Viscosity Target: 1500–3000 mPa·s	pH Target: 5.5 (Citric Acid 50%)
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Stability Test 4 wks @ 40°C/50°C · Freeze-thaw ×3 · Foam quality & pH check T0 & T4w
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FORMULA NO. JKT-0426B

Sebum Control Foam

ReNuva RL-50

Phase	Ingredient	%	INCI	Function	Manufacturer
A	Water	77.30	Aqua	Solvent	Various
A	ReNuva™ RL-50	6.00	Glycolipids	Biosurfactant	BioReNuva
A	Cola®Teric COAB	11.00	Cocamidopropyl Betaine	Amphoteric Surfactant	Colonial Chem
A	Lactic Acid (88%)	q.s.	Lactic Acid	pH Adjuster	Various
A	Butylene Glycol	3.00	Butylene Glycol	Humectant	Various
A	Aloe Vera Juice	2.00	Aloe Barbadensis Leaf Juice	Soothing Agent	Various
A	Phenoxyethanol	0.40	Phenoxyethanol	Preservative	Various
A	Lavender Essential Oil	0.10	Lavandula Angustifolia Oil	Fragrance	Various

A minimalist foaming cleanser designed for pump foamer dispensing, with ReNuva RL-50 at 6% for maximum biosurfactant performance. The simple formula of RL-50 + CAPB delivers dense, creamy foam. Aloe vera and pentylene glycol add hydration balance.

<p>Appearance</p> <p>Clear, slightly turbid liquid. Foams very well with pump foamer. Light lavender scent.</p>	<p>Procedure</p> <p>Combine all Phase A at room temperature. Mix at 450 RPM until homogeneous. Add lavender EO last. Fill into pump foamer bottles.</p>	<p>Viscosity</p> <p>Target: 2000 mPa·s (optimized for pump foamer)</p>	<p>pH</p> <p>Target: 5.2 (adjust with Citric Acid if needed)</p>
<p>Stability Test</p> <p>4 wks @ 40°C/50°C · Freeze-thaw ×3 · Foam density & pH check T0 & T4w</p>			

CATEGORY 03

Skin Cleansing

Oil-phase and emulsion cleansers with ReNuva RL-50 for deep pore cleansing, makeup removal, and skin conditioning.

Formulas:

Velvet Cleansing Oil | Barrier Cream Cleanser | Melting Cleansing Oil



FORMULA NO. JKT-0426J

Velvet Cleansing Oil

ReNuva RL-50

Phase	Ingredient	%	INCI	Function	Manufacturer
A	Coco Caprylate	20.00	Coco-Caprylate	Emollient	Various
A	Caprylic/Capric Triglyceride	12.00	Caprylic/Capric Triglyceride	Emollient	Various
A	Tegosoft DEC	15.00	Diethylhexyl Carbonate	Emollient	Evonik
A	Isoamyl Laurate	10.00	Isoamyl Laurate	Emollient	Various
A	Sunflower Seed Oil	26.00	Helianthus Annuus (Sunflower) Seed Oil	Emollient	Various
A	Coco Caprylate + Glyceryl Oleate	7.00	Coco-Caprylate (and) Glyceryl Oleate	Emollient/Co-emulsifier	Various
A	Polyglyceryl-3 Caprate	7.00	Polyglyceryl-3 Caprate	Emulsifier	Greenway
B	ReNuva™ RL-50	1.50	Glycolipids	Biosurfactant	BioReNuva
B	Glyceryl Oleate	0.75	Glyceryl Oleate	Biosurfactant Blend	Various
B	Glycerin	0.75	Glycerin	Humectant	Various

A luxurious anhydrous cleansing oil combining a diverse ester and triglyceride base with ReNuva RL-50 for biosurfactant-powered makeup and sebum removal. Polyglyceryl-3 caprate and the RL-50/glyceryl oleate complex provide self-emulsifying action. Simple one-phase mixing with stand mixer.

<p>Appearance</p> <p>Clear anhydrous oil. Slight yellow tint. Emulsifies and foams on contact with water.</p>	<p>Procedure</p> <p>Combine all Phase A at room temperature. Combine all Phase B at room temperature. Mix two phases together at 450 RPM until fully homogeneous. No heating required. Fill directly.</p>
<p>Viscosity</p> <p>Low-viscosity oil (~50–200 mPa·s). Pourable liquid at RT.</p>	<p>pH</p> <p>N/A — anhydrous formula (no water phase)</p>
<p>Stability Test</p> <p>4 wks @ 40°C/50°C · Freeze-thaw ×3 · Clarity, color & emulsification check T0 & T4w</p>	

FORMULA NO. JKT-0426G

Barrier Cream Cleanser

ReNuva RL-50

Phase	Ingredient	%	INCI	Function	Manufacturer
A	Glycine Soja Oil	47.03	Glycine Soja (Soybean) Oil	Emollient	Various
A	BIKIRA® Baobab Oil	5.20	Adansonia Digitata Seed Oil	Emollient	AE Chemie
A	Calchem BTMS-25	1.50	Behentrimonium Methosulfate (and) Cetearyl Alcohol	Conditioning Emulsifier	CalChem
A	SorbiThix L100	2.00	Sorbeth-230 Tetraoleate (and) Decyl Glucoside (and) Sorbitan Laurate	Thickener	AppleChem
B	ReNuva™ RL-50	6.30	Glycolipids	Biosurfactant	BioReNuva
B	Cola® Teric COAB	18.90	Cocamidopropyl Betaine	Amphoteric Surfactant	Colonial Chem
B	Water	14.60	Aqua	Solvent	Various
B	Glycerin	2.10	Glycerin	Humectant	Various
B	NaOH (10%)	1.30	Sodium Hydroxide	pH Adjuster	Various
B	Pentylene Glycol	0.60	Pentylene Glycol	Humectant	Various

A luxurious high-oil cleansing cream with nearly 50% soybean and baobab oils for deep makeup dissolution, emulsified with ReNuva RL-50 at 6.3%. Phase A is heated to 60°C, then Phase B is added and homogenized at 10,000 RPM. Cool to 45°C before adding citric acid for final pH adjustment. *Appearance: Creamy white paste.*

Appearance Creamy white paste. Rich, emollient texture. Rinses to a milky emulsion.	Procedure Heat Phase A to 60°C until melted. Add Phase B slowly under homogenization at 10,000 RPM. Cool to 45°C, adjust pH. Fill at 40°C.	Viscosity Target: 2000 mPa-s (semi-solid paste)	pH Target: 6.0 (Citric Acid or NaOH 10%)
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Stability Test
4 wks @ 40°C/50°C · Freeze-thaw ×3 · Emulsion stability & phase separation check T0 & T4w

FORMULA NO. JKT-0426A

Melting Cleansing Oil

ReNuva RL-50

Phase	Ingredient	%	INCI	Function	Manufacturer
A	Water	89.00	Aqua	Solvent	Various
A	Olivem 2020 G	5.00	Polyglyceryl-4 Oliviate (and) Sorbitan Oliviate	Emulsifier	Hallstar
A	Glycerin	1.00	Glycerin	Humectant	Various
A	ReNuva™ RL-50	4.00	Glycolipids	Biosurfactant	BioReNuva
A	Phenoxyethanol	1.00	Phenoxyethanol	Preservative	Various

A minimalist 5-ingredient cleansing gel using Olivem 2020 G to create a lamellar gel network structure. ReNuva RL-50 at 4% provides biosurfactant cleansing, while the gel emulsifies into a milk upon contact with water, leaving a clean, conditioned skin feel.

<p>Appearance</p> <p>White viscous gel. Forms milky emulsion on contact with water. Low foaming. Nice skin feel.</p>	<p>Procedure</p> <p>Add Olivem 2020 G to water, mix at 450 RPM for 2 hours until lamellar gel forms. Blend in glycerin, RL-50, and phenoxyethanol. Do not heat.</p>
<p>Viscosity</p> <p>Target: 5000–15000 mPa·s (Brookfield sp.6, 10 RPM)</p>	<p>pH</p> <p>Target: 5.0–6.0 (Citric Acid if needed)</p>
<p>Stability Test</p> <p>4 wks @ 40°C/50°C · Freeze-thaw ×3 · Gel integrity & syneresis check T0 & T4w</p>	

BioReNuva

Biosurfactants For Beauty Care

BioReNuva pioneers biotech beauty ingredients. Using advanced metabolic engineering and precision fermentation, we reprogram yeast and bacterial strains to over-produce ultra-pure biosurfactants, bio-emulsifiers, and bio-solubilizers developed specifically for beauty, personal and oral care applications.

Performance

Low-color, low-odor, skin-safe cleansing, superior solubility, and clinically proven skin benefits like moisturization, sebum control, anti-inflammation, microbial control, etc.

Safe

A 100% physical purification process, with zero solvents that could pose risks to end consumers.

Formulator Support

Data, application concepts, and real-world performance guidance from lab-bench insight to scaled supply for better end formulations.

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