

## Preserve Cleaner-Positioned Formulas With Confidence

Modern beauty formulas need reliable preservation without weakening a natural-positioned story. NaturePreserve™ Ultra gives developers a broad-fit option for water-containing products at pH 3.00–6.00.

- Broad protection need: bacteria, fungi, and yeast

- Fits cleaner, more natural-positioned product stories

- Designed for skincare, hair care, cleansing, makeup, deodorant, lip, and selected oral-care formats

- Adds a PHA-family value angle through Gluconolactone

# One Powder, Two Commercial Jobs

NaturePreserve™ Ultra combines preservative function with a premium Gluconolactone story. It helps formulators protect formulas while supporting mild PHA-positioned concepts.

- INCI: Gluconolactone (and) Sodium Benzoate
- Powder format: white to off-white, easy to handle
- Preservative / antimicrobial function for water-containing formulas
- Gluconolactone supports PHA-family positioning



# Broad Protection for Real-World Formats

The ingredient is built for product developers who need one preservative system across many formula types. It supports broad antimicrobial protection when used at suitable levels and within the effective pH range.

- Helps protect against bacteria, fungi, and yeast

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- Effective pH range: 3.00–6.00

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- Suitable for creams, lotions, gels, toners, masks, scrubs, cleansers, shampoos, conditioners, and more

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- Useful for both leave-on and rinse-off development needs



## Simple Use Guidance Lowers Adoption Friction

NaturePreserve™ Ultra fits common manufacturing workflows because it is water-soluble and added into the water phase. Usage guidance can be adjusted by product exposure and packaging style.

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| ● Use level: 0.75–2.00%; recommended 1.25%    | Jar creams or high-exposure formats: 1.50–2.00% |
| ● Fully packaged products: 1.00–1.25%         | Soluble in water, glycols, and ethanol          |
| ● Add into water phase; avoid heat above 80°C |   |

## PHA Story Adds More Than Preservation

Because Gluconolactone belongs to the PHA ingredient family, NaturePreserve™ Ultra can support product concepts beyond basic microbial protection. This gives brands more story value in mild, comfort-focused formulas.

- Supports mild exfoliation and skin pH positioning
- Fits barrier-comfort and moisturizing-feel concepts
- Useful for sensitive-skin-friendly story building
- Relevant for acne-care, healthy-skin, and healthy-aging concepts



# Evidence Supports Barrier and Acne Stories

Gluconolactone evidence helps build claim stories for formulas where preservation and gentle skin-positioning need to work together.

- Supports barrier and sebum-positioning by showing 10% and 30% gluconolactone chemical peels affected sebum, pH, and TEWL. Citation: S. Jarzqbek-Perz et al.
- Supports acne-care and sensitive-skin positioning by showing 14% gluconolactone solution improved mild-to-moderate acne with less irritation than benzoyl peroxide. Citation: M.J. Hunt, R.S. Barnetson

## Evidence Clarifies Healthy-Aging and Safety Roles

The research story also helps position Gluconolactone-family benefits clearly while keeping Sodium Benzoate framed as part of the preservative system.

- Supports photoaged-skin concepts by reporting PHAs including gluconolactone improved photoaged skin with humectant, moisturizing, barrier-supporting, and sensitive-skin compatibility benefits. Citation: P.E. Grimes et al.
- Supports clear Sodium Benzoate positioning by showing patch-test data with low but relevant contact-allergy potential in personal-care use. Citation: N.J. Lawrance et al.

# Build Concepts Around Preservation Plus PHA Value

NaturePreserve™ Ultra lets brands connect practical preservation with product stories consumers can understand: clean-positioned, gentle, comfort-focused, and pH-aware.

- Natural-positioned daily moisturizer: clean preservation, hydration, barrier comfort
- PHA toner or essence: mild exfoliation and refreshed skin feel
- Sensitive-skin clear gel: gentle preservation plus comfort story
- Acne-care gel or cleanser: sebum-balancing and sensitive-skin angle



# Know the Guardrails Before Scale-Up

The ingredient is flexible, but the strongest customer outcome comes from using it in the right formula environment. These guardrails help developers build efficiently from bench to launch.

- ▲ Final formula pH should stay within 3.00–6.00
- ▲ NaturePreserve™ Ultra is acidic and may lower final pH
- ▲ Do not use together with Vitamin C (L-Ascorbic Acid)
- ▲ Storage and transportation: room temperature, 25–40°C
- ▲ Shelf life: 36 months; current lot expiry 09/2028

## Choose NaturePreserve™ Ultra for Flexible Clean Preservation

NaturePreserve™ Ultra is a strong choice when a formula needs dependable broad preservation and a more premium PHA-linked product story. It helps developers protect formulas while expanding concept potential.

- ✓ Broad antimicrobial coverage for pH 3.00–6.00 formulas
- ✓ Powder preservative format with water, glycol, and ethanol solubility
- ✓ Use across many skincare, hair care, cleansing, makeup, deodorant, lip, and selected oral-care formats
- ✓ Gluconolactone enables mild, comfort-focused PHA positioning
- ✓ Practical recommended level: 1.25% for general use