

Preservatives Portfolio



Selecting systems that effectively protect cosmetic and personal care formulations and are consistent with consumers' desires, country regulations and technical requirements is critical. Lonza is the world leader in microbial control providing innovative, chemistry-based and related solutions to destroy or to selectively inhibit the growth of harmful microorganisms. Lonza's Personal Care portfolio offers a comprehensive range of preservation systems.

Protecting Your Products and Your Reputation™

Personal Care Preservatives

Keeping consumers safe from product contamination through the duration of product use is a priority and is also essential for brand and product success. The specifics of each formulation dictate which kind of preservative can be used.

For many years, Lonza Consumer Care has remained proud to offer a comprehensive range of preservation systems to the global Personal Care market, a wide-ranging offering of single active and blended preservatives that capably offers:

- Traditional, non-traditional and novel technologies
- Wide global acceptance and regulatory compliance
- Broad spectrum efficacy
- Robust data packages
- Extensive substrate compatibility
- Innovative and market-focused R&D
- Industry-leading Regulatory and Toxicology expertise

FormulaProtect®

The FormulaProtect® tool is an interactive, online application that allows formulators to save time and easily identify preservatives that best suit their specific needs.

By simply selecting specific formulation criteria such as pH, required spectrum, formulation type, regulatory and organizational approvals, amongst other criteria, the user will be presented with a selection of recommended preservative options along with detailed information on each of them.

This tool will help provide guidance for the preservatives that meet formulator's marketing needs and that provide the efficacy required throughout the lifetime of the cosmetic product.

Find the preservative or protection system that is right for you at www.formulaprotect.com

Traditional Preservation

Lonza's traditional preservatives are efficacious chemistries that have been used in the personal care industry for decades. They include standalone or blended synthetic chemistries of which many are listed on the Annex V to EU Regulation EC/1223/2009 – formerly Annex VI to Council Directive 76/768/EEC. Each solution offers unique benefits for optimal protection of a variety of formulations.

PHMB Technology

Cosmocil® CQ

Product Name	INCI Name	Product Form	Spectrum	Features	Effective pH range	Suggested Product Use Level
Cosmocil® CQ	Polyaminopropyl Biguanide	Liquid, Water-soluble	Bacteria	<ul style="list-style-type: none"> – Fast-acting antibacterial – Clear and colorless, zero-VOC solution – Free from smell and taste – No sticky feel on skin 	3–10	0.2–1.5%

IPBC Technology

Glycacil®

Product Name	INCI Name	Product Form	Spectrum	Features	Effective pH range	Suggested Product Use Level
Glycacil® L	Iodopropynyl Butylcarbamate	Liquid, Oil-soluble	Yeast & mold	<ul style="list-style-type: none"> – Highly effective antifungal – Broad pH applicability – Effective at low levels – Wide global acceptance – Compatible with a broad range of personal care ingredients 	2–9	0.1–0.3%
Glycacil® 2000	Iodopropynyl Butylcarbamate	Liquid, Water-soluble	Yeast & mold	<ul style="list-style-type: none"> – Highly effective antifungal – Broad pH applicability – Effective at low levels – Wide global acceptance – Compatible with a broad range of personal care ingredients – Convenient water-soluble solution 	2–9	0.15–0.5%



Glydant®

Product Name	INCI Name	Product Form	Spectrum	Features	Effective pH range	Suggested Product Use Level
Glydant® 2000	DMDM Hydantoin	Liquid, Water-soluble	Bacteria	<ul style="list-style-type: none"> – Wide global recognition and acceptance – Trusted and well-regarded antibacterial – Mild antifungal protection – Cost-effective – Compatible with a broad range of personal care ingredients – Ultra-low free formaldehyde (<0.1%) – Non-freezing system 	2–10	0.1–0.6%
Glydant®	DMDM Hydantoin	Liquid, Water-soluble	Bacteria	<ul style="list-style-type: none"> – Wide global recognition and acceptance – Trusted and well-regarded antibacterial – Mild antifungal protection – Cost-effective – Compatible with a broad range of personal care ingredients 	2–10	0.1–0.6%
Glydant® LTD	DMDM Hydantoin	Liquid, Water-soluble	Bacteria	<ul style="list-style-type: none"> – Wide global recognition and acceptance – Trusted and well-regarded antibacterial – Mild antifungal protection – Cost-effective – Compatible with a broad range of personal care ingredients 	2–10	0.1–0.6%



Product Name	INCI Name	Product Form	Spectrum	Features	Effective pH range	Suggested Product Use Level
Glydant Plus®	DMDM Hydantoin (and) Iodopropynyl Butylcarbamate	Solid, Water-soluble	Broad	<ul style="list-style-type: none"> - Synergistic combination of two well-trusted preservatives - Broad spectrum protection - Cost-effective - Compatible with a broad range of personal care ingredients - Ultra-low free formaldehyde (<0.1%) 	2-9	0.075-0.18%
Glydant Plus® Liquid	DMDM Hydantoin (and) Iodopropynyl Butylcarbamate	Liquid, Water-soluble	Broad	<ul style="list-style-type: none"> - Synergistic combination of two well-trusted preservatives - Broad spectrum protection - Cost-effective - Compatible with a broad range of personal care ingredients - Ultra-low free formaldehyde (<0.1%) - Convenient water-soluble solution 	2-9	0.15-0.36%



Isocil® PC, Lonzagard®, Lonzaserve®, Mikrokill® COS and Spectradyne™

Product Name	INCI Name	Product Form	Spectrum	Features	Effective pH range	Suggested Product Use Level
Isocil® PC	Methylchloroisothiazolinone (and) Methylisothiazolinone	Liquid, Water-soluble	Broad	<ul style="list-style-type: none"> – Globally recognised – Trusted broad spectrum protection – Compatible and soluble in most personal care raw materials – Cost-effective 	3–9	0.05–0.1%
Lonzagard® Benzethonium Chloride	Benzethonium Chloride	Solid, Water-soluble	Bacteria, mild fungicide	<ul style="list-style-type: none"> – Strong antibacterial performance – Water soluble – Odorless – Cationic antimicrobial 	6–9	0.1–0.5 %
Lonzaserve® PC	DMDM Hydantoin (and) Methylchloroisothiazolinone (and) Methylisothiazolinone	Liquid, Water-soluble	Broad	<ul style="list-style-type: none"> – Globally recognised active ingredients – Trusted broad spectrum protection – Compatible and soluble in most personal care raw materials – Cost-effective – Ultra-low free formaldehyde (<0.1%) 	3–9	0.05–0.2%
Mikrokill® COS	Phenoxyethanol (and) Caprylyl Glycol (and) Chlorphenesin	Liquid, Oil soluble	Broad	<ul style="list-style-type: none"> – Broad spectrum, dual active protection – Effective across a wide pH range – Wide global acceptance 	3–8	0.75–1.50%
Spectradyne™	Chlorhexidine Digluconate	Liquid, Water-soluble	Bacteria	<ul style="list-style-type: none"> – Reliable antibacterial performance – Cationic antimicrobial – Recognised compatibility with mucous membranes 	6–8	0.25–1.50%

Globally-approved alternatives to traditional chemistries

Lonza's Geogard® line is a product platform, offering a variety of single-active and blended preservatives capable of providing effective product protection whilst avoiding use of traditional or more controversial chemistries.

The line is further characterised by its provision of products with acceptance by organisations such as ECOCERT, COSMOS, the Soil Association and NATRUE, and attributes such as Generally Recognised As Safe (GRAS) and non-GMO ingredients.

Trusted Next-Generation Preservation

Geogard®

Product Name	INCI Name	Product Form	Spectrum	Features	Effective pH range	Suggested Product Use Level
Geogard® 111 A	Dehydroacetic Acid	Solid, Oil-soluble	Yeast & mold	<ul style="list-style-type: none"> Strong organic acid antifungal preservative ECOCERT- and COSMOS-accepted Soil Association-approved NPA-accepted Vegan-compliant Oil-soluble equivalent to the water-soluble Geogard® 111S 	2–6.5	0.1–0.6%
Geogard® 111 S	Sodium Dehydroacetate	Solid, Water-soluble	Yeast & mold	<ul style="list-style-type: none"> Strong organic acid antifungal preservative ECOCERT- and COSMOS-accepted Soil Association-approved NPA-accepted Vegan-compliant Water-soluble equivalent to Geogard® 111A 	2–6.5	0.1–0.68%
Geogard® 221	Dehydroacetic Acid (and) Benzyl Alcohol	Liquid, Oil-soluble	Broad	<ul style="list-style-type: none"> Broad spectrum complementary blend ECOCERT- and COSMOS- accepted NPA-accepted Soil Association-approved 	2–7	0.2–1.1%
Geogard® ECT	Benzyl Alcohol (and) Salicylic Acid (and) Glycerin (and) Sorbic Acid	Liquid, Water-soluble	Broad	<ul style="list-style-type: none"> Broad spectrum preservative blend Effective across a wide pH range ECOCERT- and COSMOS- certified NPA-accepted Vegan-compliant 	3–8	0.6–1.0%
Geogard® LSA	Butylene Glycol (and) Benzyl Alcohol (and) Sorbic Acid (and) Caprylic/ Capric Triglyceride (and) Lauryl Alcohol (and) Myristyl Alcohol	Liquid, Oil-soluble	Broad	<ul style="list-style-type: none"> Broad spectrum antimicrobial Non-GMO Compatible with key raw materials Vegan-compliant 	3–6	1.0–2.0%
Geogard Ultra™	Gluconolactone (and) Sodium Benzoate (and) Calcium Gluconate	Solid, Water-soluble	Broad	<ul style="list-style-type: none"> Broad antimicrobial performance ECOCERT- and COSMOS-certified NaTrue-certified Soil Association-approved Halal-certified Vegan-compliant Offers complementary moisturisation benefit 	3–6	0.75–2.0%

The Lonza **Regulatory** and **Toxicology** teams comprise experts serving all regions. The teams are highly involved in the solutions offered to ensure that all products are appropriate for use and have the **regional approvals** in the countries in which Lonza sells. The experts also capture all restrictions and regulatory changes relating to use in finished formulations to ensure that the necessary requirements continue to be in place opposite the safety of consumers.

The extensive, global **Lonza microbiology staff** works every day on testing existing and new preservative and protection systems to best support our customers. This includes combinations of specialized Lonza protocols for microbial testing as well as CTFA challenge testing as required.

Lonza's fully-equipped **applications laboratories** support formulation requests during development. The labs are operated by formulators with extensive experience. This team is happy to **assist with technical support** by answering customers' queries as they relate to finished product formulation, including preservation.

Checking the efficacy of all preservation and protection systems or products in the specific formulation in normal use conditions and under the user's stability protocols remains the responsibility of the manufacturer. Testing in the final packaging is encouraged. It remains the responsibility of the customer to check that all regulatory aspects are compliant with their country's specific requirements.

Use preservatives safely. Always read the label and product information before use.

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Review and follow all product safety instructions. All product information corresponds to Lonza's knowledge on the subject at the date of publication, but Lonza makes no warranty as to its accuracy or completeness and Lonza assumes no obligation to update it. Product information is intended for use by recipients experienced and knowledgeable in the field, who are capable of and responsible for independently determining the suitability of ingredients for intended uses and to ensure their compliance with applicable law. Proper use of this information is the sole responsibility of the recipient. This information relates solely to the product as an ingredient. It may not be applicable, complete or suitable for the recipient's finished product or application; therefore republication of such information or related statements is prohibited. Information provided by Lonza is not intended and should not be construed as a license to operate under or a recommendation to infringe any patent or other intellectual property right. No claims are made herein for any specific intermediate or end-use application. All trademarks belong to Lonza or its affiliates and are pending or registered in the USA or EU, or are third party trademarks belonging to their respective owners and only being used for informational purposes.

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It is the responsibility of the finished good manufacturer to ensure their product is compliant with the applicable regulations. Our regulatory specialists are available for questions surrounding specific requirements and restrictions of these substances. Recommended product use level varies depending on country. Check local regulations.

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