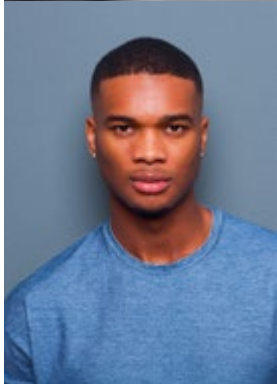


symrise 

Product Protection

ALWAYS A STEP AHEAD



DELIVERING A *positive* FORMULATION AND CONSUMER EXPERIENCE

MICROORGANISMS: FRIEND OR FOE?

With the increasing interest in the microbiome, microorganisms have gained a favorable reputation in modern culture. Consumers now understand that not all organisms are pathogens and some even support our health. However, formulators understand the detrimental effects microorganisms can have upon cosmetic products. At Symrise, we **understand the balance that exists between consumer perception and the formulator's reality**. We aim to educate our customers on the safest, most efficacious options to protect their products.

Symrise has been the most innovative player in the field of modern product protection for the last twenty years.

Our ingredients that protect formulations from contamination by microorganisms are grouped under the unique name "PRODUCT PROTECTION".

Our objective is to give our customers a **full tool box** that encompasses the different categories of personal care products and satisfies the specific demands of regional markets.

HOGO, our online platform for Product Protection, guides you to find the right solution to protect your formulas.



EXPERTISE & INNOVATION

EXPLORING *creative* TECHNOLOGIES

SYMRISE & MICRO PROTECTION

A LONG HISTORY OF KNOW-HOW

Symrise's Cosmetic Ingredients Division is a **pioneer and leading supplier** of modern antimicrobial solutions in the fields of preservatives, multifunctionals, deodorants, dandruff control and hygiene. Symrise has been granted more than **1000 patents** globally, including more than 300 exclusively for Cosmetic Ingredients. With regional Regulatory Affairs and Consumer Market Insights Departments, Symrise is always at the forefront of information in the regulatory space to address formulator challenges in all areas of personal care around the world.

CUTTING-EDGE TECHNOLOGIES

We anticipate **the challenges for formulators and consumer needs** by developing smart, patented micro protection solutions.

INTERACTIVE COMMUNITY

We build **strong relationships** with our clients by creating dedicated tools and targeted solutions together with our global team.

WELLNESS MINDSET

We fulfill the consumer's desire for **transparency and well-being** with safe, innovative technologies.

360° SUPPORT

SUPPORTING, ACCELERATING & SIMPLIFYING

Your Product Development

ured in

1:40:0 8:44

SYMRISE: YOUR PARTNER

SOLVING YOUR PRODUCT PROTECTION CHALLENGES

At Symrise, we believe that offering you a wide variety of high quality, superior efficacy solutions for all of your application needs is just the beginning. We remain passionate about helping you find the perfect technology to fit your unique requirements.

In our constant desire to support your product development efforts, we can provide **customized training sessions** for your team. At your request, we are able to perform **in-house preservatives efficacy testing**. Our **regulatory affairs department** is also ready to support your product development requirements.





PRESERVATIVES

INDISPENSABLE

Protection

HIGHLY EFFECTIVE PRODUCT PROTECTION

RICH PALETTE FOR ALL TYPES OF APPLICATIONS

Preservatives are an integral part of cosmetic formulations and consumer safety. They help prevent microbial contamination, not only to protect the freshness of your product, but also to keep consumers safe from harmful microorganisms.

In a world of changing consumer expectations, market trends, individual company policies, and updated regulations, formulators need to be increasingly creative by using **innovative antimicrobial ingredients** and combinations to provide **safe and effective** products. Symrise offers a full range of unique molecules and synergistic combinations within the SymOcide® portfolio to preserve cosmetic products.

IN-HOUSE FORMULATION
AND TESTING EXPERTISE

COMPREHENSIVE
PORTFOLIO

SAFE & EFFECTIVE
SOLUTIONS



MULTIFUNCTIONALS

THE POWER OF *Synergy*

MULTI-TALENTED COSMETIC INGREDIENTS

SMART SOLUTIONS FOR YOUR FORMULATION DEVELOPMENT

Explore clever solutions for keeping cosmetic products safe and stable. **Multifunctionals** are the key! With primary benefits such as **soothing, moisturizing, antioxidant or solubilizing**, these molecules also **enhance the product protection properties** of formulas.

Despite a strong demand, only a few ingredients that help provide product protection have been launched during the last 20 years. Symrise is a **pioneer in this area**. In 1992, Symrise launched the first 1,2-alkanediol (Hydrolite® 5) in the cosmetic market and since then has continued to innovate in the world of multifunctionals with molecules such as methylbenzyl alcohol (SymTriol®) and hydroxyacetophenone (SymSave® H), a nature-identical antioxidant that helps product protection.

RETHINKING THE
FORMULATING EXPERIENCE

LONG HERITAGE






A PORTFOLIO WITH
SYNERGISTIC PERFORMANCES

CLEAN & GREEN SOLUTIONS

MULTIFUNCTIONALS

PRODUCT PROTECTION





PRESERVATIVES

	Product Name / Code	INCI	Benefits	Antimicrobial efficacy		Product properties / Formulation	Additional info
				Bacteria/	Yeast & Mold		
PRESERVATIVES	SymOcide® C 510633	o-Cymen-5-ol	<ul style="list-style-type: none"> Lowers the amount of preservative needed in a formulation Synergism with 1,2-alkanediols, SymSave® H, organic acids, phenoxyethanol Suitable for oral care 	++++	+	<ul style="list-style-type: none"> Colorless crystals, low odor Good solubility in ethanol and diols Dosage: up to 0.1% pH of use: 3 to 10 Up to 80°C 	 <ul style="list-style-type: none"> Registered preservative, listed on Annex V of the EU cosmetics regulation Readily biodegradable
	SymGuard® CD 675075	Phenylpropanol, o-Cymen-5-ol, Decylene Glycol	<ul style="list-style-type: none"> Contributes to product protection: allows for a lower dose of other preservatives Suitable for oral care 	++++	++	<ul style="list-style-type: none"> Clear & colorless liquid Soluble in alcohol, glycols, vegetable oils and cosmetic esters Dosage: up to 0.5% pH of use: 3 to 10 	 <ul style="list-style-type: none"> Contains a registered preservative Readily biodegradable Patent pending
PRESERVATIVE SOLUTIONS WITH ANTIOXIDANTS	SymOcide® BHO 798591	Benzyl Alcohol, Hydroxyacetophenone, Caprylyl Glycol	<ul style="list-style-type: none"> Benzyl alcohol blend with the power of SymSave® H Includes an antioxidant True multi-tasker: suitable for a wide range of formulations 	++++	+++	<ul style="list-style-type: none"> Clear liquid, nearly odorless Soluble in ethanol, diols, glycols and cosmetic esters Dosage: up to 1.55% pH of use: 3 to 9 Up to 80°C Cold process 	 <ul style="list-style-type: none"> Contains a registered preservative Readily biodegradable Patented
	SymOcide® PH 973949	Phenoxyethanol, Hydroxyacetophenone, Caprylyl Glycol	<ul style="list-style-type: none"> Phenoxyethanol blend with the power of SymSave® H Antioxidant activity Suitable for oral care 	++++	+++	<ul style="list-style-type: none"> Clear liquid, low odor Soluble in ethanol, diols, glycols and cosmetic esters Dosage: up to 1.45% pH of use: 3 to 9 Up to 80°C Cold process 	 <ul style="list-style-type: none"> Contains a registered preservative Readily biodegradable Patented
	SymOcide® PT 177439	Phenoxyethanol, Tropolone	<ul style="list-style-type: none"> High antioxidant activity 	++++	++++	<ul style="list-style-type: none"> Colorless to pale yellow liquid, mild characteristic odor Soluble in glycols and esters Dosage: up to 1.0% pH of use: 3 to 7 Up to 80°C Cold process 	 <ul style="list-style-type: none"> Contains a registered preservative Readily biodegradable Patented

- REACH numbers available on request
- Toxicological data available on request

- Suitable Vegan according to Symrise criteria
- Halal & Kosher status available on request

PRESERVATIVES

Product Name / Code	INCI	Benefits	Antimicrobial efficacy		Product properties / Formulation	Additional info	
			Bacteria/	Yeast & Mold			
PHENOXYETHANOL-BASED PRESERVATIVE SOLUTIONS WITH 1,2-ALKANEDIOLS	SymOcide® CPX 747194	Phenoxyethanol, Caprylyl Glycol, Hexylene Glycol	• For low phenoxyethanol formulations	+++	++	<ul style="list-style-type: none"> • Clear liquid, low odor • Soluble in glycols and esters • Dosage: up to 2.8% • pH of use: 3 to 10 • Up to 80°C • Cold process 	 <ul style="list-style-type: none"> • Registered preservative, listed on Annex V of the EU cosmetics regulation • Readily biodegradable • Patented
	SymOcide® PC 510631	Phenoxyethanol, Caprylyl Glycol	<ul style="list-style-type: none"> • Excellent heat stability • Suitable for oral care 	++++	+++	<ul style="list-style-type: none"> • Clear liquid, low odor • Soluble in glycols and esters • Dosage: up to 1.8% • pH of use: 3 to 10 • Up to 80°C • Cold process 	 <ul style="list-style-type: none"> • Contains a registered preservative • Readily biodegradable
	SymOcide® PDO 808263	Phenoxyethanol, Caprylyl Glycol, Decylene Glycol	<ul style="list-style-type: none"> • Broad-spectrum blend • Cost effective • Suitable for oral care 	+++	++	<ul style="list-style-type: none"> • Clear liquid, low odor • Soluble in glycols and esters • Dosage: up to 1.1% • pH of use: 3 to 10 • Up to 80°C • Cold process 	 <ul style="list-style-type: none"> • Contains a registered preservative • Readily biodegradable • Patented • Other version: SymOcide® PO (663019) (up to 1.4%)
	SymOcide® PS 510179	Phenoxyethanol, Decylene Glycol, 1,2-Hexanediol	<ul style="list-style-type: none"> • 2-in-1: deodorizes & preserves • Broad spectrum preservative • Ideal for aqueous formulations (shampoos, gels) • Suitable for oral care 	++++	+++	<ul style="list-style-type: none"> • Clear liquid, low odor • Soluble in oil, glycols, and cosmetic esters • Dosage: up to 1.4% (1.0% for oral care) • pH of use: 3 to 10 • Up to 80°C 	 <ul style="list-style-type: none"> • Registered preservative, listed on Annex V of the EU cosmetics regulation • Readily biodegradable • Patented







PRODUCT PROTECTION

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PRODUCT PROTECTION

MULTIFUNCTIONALS

Product Name / Code	INCI	Benefits	Helps Product Protection		Product properties / Formulation	Additional info
			Bacteria/	Yeast & Mold		
Hydrolite® 5 green 996442	Pentylene Glycol	<ul style="list-style-type: none"> Product protection enhancer Hydration: +10% vs placebo after 4hours (<i>in vivo</i>) Enhances the performance of actives: -51% ROS vs active (Dragosine®) alone (<i>ex vivo</i>) / 95% more homogeneous color vs DHA alone (<i>in vivo</i>) Hair care performances Respects skin microbiome Improves formulation aesthetics :-15% greasy effect (<i>in vivo</i>) Solubilizing properties Product protection enhancer Suitable for oral care 	+++	+	<ul style="list-style-type: none"> Colorless liquid, nearly odorless Water soluble Dosage: up to 5% pH of use: 3 to 12 Up to 100°C Cold process 	 <ul style="list-style-type: none"> 100% green carbon (derived from sugar cane) GMO-free Readily biodegradable Other version: Hydrolite® 5P (250371) Patented
Hydrolite® 6 green 302090	1,2-Hexanediol	<ul style="list-style-type: none"> Product protection enhancer Hydration Respects skin microbiome Improves formulation esthetics & sensorial profile Solubilizing properties Foam stabilization Suitable for oral care 	++++	++	<ul style="list-style-type: none"> Colorless liquid, nearly odorless Water soluble Dosage: up to 2% pH of use: 3 to 12 Up to 100°C Cold process 	 <ul style="list-style-type: none"> 100% green carbon Readily biodegradable Patented
Hydrolite® 6 841129/821138		<ul style="list-style-type: none"> Product protection enhancer Hydration Respects skin microbiome Improves formulation esthetics & sensorial profile Solubilizing properties Foam stabilization Suitable for oral care 			<ul style="list-style-type: none"> Colorless liquid, nearly odorless Water soluble Dosage: up to 2% pH of use: 3 to 12 Up to 100°C Cold process 	 <ul style="list-style-type: none"> Readily biodegradable Other versions: Hydrolite® 6O (510352), Hexanediol Technical (753303) Patented
Hydrolite® 7 green 497010	1,2-Heptanediol	<ul style="list-style-type: none"> Product protection enhancer Enhances the performance of antioxidants Helps modulate sebum and reduce malodor Respects skin microbiome Suitable for oral care 	++++	++	<ul style="list-style-type: none"> Clear, colorless liquid, nearly odorless Water soluble Dosage: up to 1.0% pH of use: 3 to 12 Up to 100°C Cold process 	 <ul style="list-style-type: none"> 100% green carbon Readily biodegradable Patents pending
Hydrolite® 8 green (>98% purity) 238958	Caprylyl Glycol	<ul style="list-style-type: none"> Product protection enhancer Hydration Respects skin microbiome Co-wetting properties: improves the dispersion of pigments Suitable for oral care 	++++	++	<ul style="list-style-type: none"> Colorless to white, liquid to solid, slight characteristic odor Water soluble Dosage: up to 2% pH of use: 3 to 12 Up to 100°C 	 <ul style="list-style-type: none"> 100% green carbon Readily biodegradable Patents pending
Hydrolite® 8 (>99% purity) 109169 Hydrolite® CG (>98% purity) 199602/ 797076		<ul style="list-style-type: none"> Product protection enhancer Hydration Respects skin microbiome Co-wetting properties: improves the dispersion of pigments Suitable for oral care 			<ul style="list-style-type: none"> Colorless to white, liquid to solid, slight characteristic odor Water soluble Dosage: up to 2% pH of use: 3 to 12 Up to 100°C 	 <ul style="list-style-type: none"> Readily biodegradable Other version: Hydrolite® CGW (510719) Patented

MULTIFUNCTIONALS

Product Name / Code	INCI	Benefits	Helps Product Protection		Product properties / Formulation	Additional info
			Bacteria/	Yeast & Mold		
SymDiol® 68 green 616328	1,2-Hexanediol, Caprylyl Glycol	<ul style="list-style-type: none"> Product protection enhancer Synergistic association Better protection than glycerin against TEWL, equivalent moisturization properties to glycerin (<i>in vivo</i>) Respects skin microbiome Helps to stabilize emulsions Suitable for oral care 	++++	++	<ul style="list-style-type: none"> Colorless liquid, nearly odorless Water soluble Dosage: up to 1.5% pH of use: 3 to 12 Up to 100°C Cold process 	 <ul style="list-style-type: none"> 100% green carbon Readily biodegradable Patented
SymDiol® 68 108580						 <ul style="list-style-type: none"> Readily biodegradable Patented
SymDiol® 68T 177441	1,2-Hexanediol, Caprylyl Glycol, Tropolone	<ul style="list-style-type: none"> Broad-spectrum product protection enhancer Synergistic association Moisturizer Antioxidant Suitable for oral care 	++++	++++	<ul style="list-style-type: none"> Clear, nearly odorless liquid Water soluble up to 0.9% Dosage: up to 1% pH of use: 3 to 8 Up to 100°C Cold process 	 <ul style="list-style-type: none"> Readily biodegradable Patented
SymTriol® 399870	1,2-Hexanediol, Caprylyl Glycol, Methylbenzyl Alcohol	<ul style="list-style-type: none"> Broad-spectrum product protection enhancer Synergistic association Better protection than glycerin against TEWL, equivalent moisturization properties to glycerin (<i>in vivo</i>) Suitable for oral care 	++++	+++	<ul style="list-style-type: none"> Clear liquid, very low odor Soluble in cosmetic esters and glycols Dosage: up to 1% pH of use: 3 to 12 Up to 100°C Cold process 	 <ul style="list-style-type: none"> Readily biodegradable Patented
SymLite® G8 104528	Glyceryl Caprylate	<ul style="list-style-type: none"> Product protection enhancer Co-emulsifier Skin barrier protection Moisturizer Suitable for oral care Natural Deodorant 	++++	++	<ul style="list-style-type: none"> Colorless liquid to light yellow solid characteristic odor Soluble in glycols and ethanol Dosage up to 2% pH of use: 4 to 7 Up to 60°C 	 <ul style="list-style-type: none"> Readily biodegradable RSPO MB





PRODUCT PROTECTION

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PRODUCT PROTECTION

MULTIFUNCTIONALS

Product Name / Code	INCI	Benefits	Helps Product Protection		Product properties / Formulation	Additional info
			Bacteria/	Yeast & Mold		
Hydrolax™ E 379434	Ethylhexyl-glycerin	<ul style="list-style-type: none"> Product protection enhancer Emollient Deodorant properties 	++++	+	<ul style="list-style-type: none"> Clear liquid, nearly odorless Dosage: up to 1.0% Soluble in cosmetic esters, glycols and ethanol pH of use: 3 to 12 Cold process 	 <ul style="list-style-type: none"> Readily biodegradable
Savelite® HB 811134	Hydroxypropyl Benzoate	<ul style="list-style-type: none"> Broad-spectrum product protection enhancer Hydration: +10.9% vs untreated skin after 14 days (in vivo) Respects skin microbiome Antioxidant and antioxidants enhancer Emulsion stabilization 	++++	+++	<ul style="list-style-type: none"> Clear, colorless, odorless liquid Soluble in ethanol, glycols, lipophilic solvents, cosmetic esters and vegetable oils Dosage: up to 1% pH of use: 3 to 7 Up to 90°C Cold process 	 <ul style="list-style-type: none"> Readily biodegradable Non-GMO Patented
SymSave® 5E 347138	Pentylene Glycol, Ethylhexylglycerin, Hydroxyacetophenone, Aqua	<ul style="list-style-type: none"> Broad-spectrum product protection enhancer Liquid multifunctional blend for cold-processing Antioxidant and deodorant properties Improves formulation esthetics & sensorial profile Respects skin microbiome 	++++	+++	<ul style="list-style-type: none"> Clear liquid with very low odor Water-soluble up to 1% Dosage: up to 1.5% pH of use: 3 to 9 Up to 100°C Cold process 	 <ul style="list-style-type: none"> Readily biodegradable Patented
SymSave® H 979940/672096/333184	Hydroxyacetophenone	<ul style="list-style-type: none"> Broad-spectrum product protection enhancer Antioxidant Soothing agent Respects skin microbiome Suitable for oral care 	++++	+++	<ul style="list-style-type: none"> White to beige crystalline powder, very light odor Water soluble up to 1.0% Dosage: up to 1% pH of use: 3 to 9 Up to 100°C Cold process 	 <ul style="list-style-type: none"> Readily biodegradable Patented

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always
inspiring more ...



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