Product Protection
ALWAYS A STEP AHEAD
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 solution to protect your formulas.
Symrise Cosmetic Ingredients Division is a pioneer and leading supplier of modern anti-microbial 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
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
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.
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.
# PRODUCT PROTECTION

## PRESERVATIVES

<table>
<thead>
<tr>
<th>Product Name / Code</th>
<th>INCI</th>
<th>Benefits</th>
<th>Antimicrobial efficacy</th>
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<tbody>
<tr>
<td>SymOcide® C 510633</td>
<td>o-Cymen-5-ol</td>
<td>Lower the amount of preservative needed in a formulation, Synergism with 1,2-alkanediols, SymSave® H, organic acids, phenoxyethanol, Suitable for oral care</td>
<td>++++</td>
<td>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</td>
<td>Registered preservative, listed on Annex V of the EU cosmetics regulation, Readily biodegradable</td>
</tr>
<tr>
<td>SymGuard® CD 675075</td>
<td>Phenylpropanol, o-Cymen-5-ol, Decylene Glycol</td>
<td>Contributes to product protection: allows for a lower dose of other preservatives, Suitable for oral care</td>
<td>++++ ++</td>
<td>Clear &amp; colorless liquid, Soluble in alcohol, glycols, vegetable oils and cosmetic esters, Dosage: up to 0.5%, pH of use: 3 to 10</td>
<td>Contains a registered preservative, Readily biodegradable, Patent pending</td>
</tr>
<tr>
<td>SymOcide® BHO 798591</td>
<td>Benzyl Alcohol, Hydroxyacetophenone, Caprylyl Glycol</td>
<td>Benzyl alcohol blend with the power of SymSave® H, Includes an antioxidant, True multi-tasker: suitable for a wide range of formulations</td>
<td>++++ +++</td>
<td>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</td>
<td>Contains a registered preservative, Patented</td>
</tr>
<tr>
<td>SymOcide® PH 973949</td>
<td>Phenoxyethanol, Hydroxyacetophenone, Caprylyl Glycol</td>
<td>Phenoxyethanol blend with the power of SymSave® H, Antioxidant activity, Suitable for oral care</td>
<td>++++ +++</td>
<td>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</td>
<td>Contains a registered preservative, Readily biodegradable, Patented</td>
</tr>
<tr>
<td>SymOcide® PT 177439</td>
<td>Phenoxyethanol, Tropolone</td>
<td>High antioxidant activity</td>
<td>++++ ++++</td>
<td>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</td>
<td>Contains a registered preservative, Patented</td>
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<tr>
<td>SymOcide® PS 510179</td>
<td>Phenoxyethanol, Decylene Glycol, 1,2-Hexanediol</td>
<td>• 2-in-1: deodorizes &amp; preserves&lt;br&gt;• Broad spectrum preservative&lt;br&gt;• Ideal for aqueous formulations (shampoos, gels)&lt;br&gt;• Suitable for oral care</td>
<td>+++&lt;br&gt;+++</td>
<td>• Clear liquid, low odor&lt;br&gt;• Soluble in oil, glycols, and cosmetic esters&lt;br&gt;• Dosage: up to 1.4% (1.0% for oral care)&lt;br&gt;• pH of use: 3 to 10&lt;br&gt;• Up to 80°C</td>
<td>• Registered preservative, listed on Annex V of the EU cosmetics regulation&lt;br&gt;• Readily biodegradable&lt;br&gt;• Patented</td>
</tr>
<tr>
<td>SymOcide® PC 510631</td>
<td>Phenoxyethanol, Caprylyl Glycol</td>
<td>• Excellent heat stability&lt;br&gt;• Suitable for oral care</td>
<td>+++&lt;br&gt;+++</td>
<td>• Clear liquid, low odor&lt;br&gt;• Soluble in glycols and esters&lt;br&gt;• Dosage: up to 1.8%&lt;br&gt;• pH of use: 3 to 10&lt;br&gt;• Up to 80°C&lt;br&gt;• Cold process</td>
<td>• Contains a registered preservative&lt;br&gt;• Readily biodegradable</td>
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<tr>
<td>SymOcide® PDO 808263</td>
<td>Phenoxyethanol, Caprylyl Glycol, Decylene Glycol</td>
<td>• Broad-spectrum blend&lt;br&gt;• Cost effective&lt;br&gt;• Suitable for oral care</td>
<td>+++&lt;br&gt;++</td>
<td>• Clear liquid, low odor&lt;br&gt;• Soluble in glycols and esters&lt;br&gt;• Dosage: up to 1.1%&lt;br&gt;• pH of use: 3 to 10&lt;br&gt;• Up to 80°C&lt;br&gt;• Cold process</td>
<td>• Contains a registered preservative&lt;br&gt;• Readily biodegradable&lt;br&gt;• Patented&lt;br&gt;• Other version: SymOcide® PO (663019) (up to 1.4%)</td>
</tr>
<tr>
<td>SymOcide® CPX 747194</td>
<td>Phenoxyethanol, Caprylyl Glycol, Hexylene Glycol</td>
<td>• For low phenoxyethanol formulations</td>
<td>+++&lt;br&gt;++</td>
<td>• Clear liquid, low odor&lt;br&gt;• Soluble in glycols and esters&lt;br&gt;• Dosage: up to 2.8%&lt;br&gt;• pH of use: 3 to 10&lt;br&gt;• Up to 80°C&lt;br&gt;• Cold process</td>
<td>• Contains a registered preservative&lt;br&gt;• Readily biodegradable</td>
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| **Hydrolite® 5 green** 996442 | Pentylene Glycol | • Hydration: +10% vs placebo after 4 hours *(in vivo)*  
• Enhances the performance of actives: -51% ROS vs active (Dragosine®) alone *(ex vivo)* / 95% more homogeneous color vs DHA alone *(in vivo)*  
• Improves formulation aesthetics: -15% greasy effect *(in vivo)*  
• Solubilizing properties  
• Product protection enhancer  
• Suitable for oral care | +++ | • Colorless liquid, nearly odorless  
• Water soluble  
• Dosage: up to 5%  
• pH of use: 3 to 12  
• Up to 100°C  
• Cold process | <br>• 100% bio-based carbon (derived from sugar cane)<br>• GMO-free<br>• Readily biodegradable<br>• Other version: Hydrolite® 5P (250371)<br>• Patented |
| **Hydrolite® 6 841129/821138** | 1,2-Hexanediol | • Hydration  
• Solubilizing properties  
• Product protection enhancer  
• Suitable for oral care | +++ | • Colorless liquid, nearly odorless  
• Water soluble  
• Dosage: up to 2%  
• pH of use: 3 to 12  
• Up to 100°C  
• Cold process | <br>• Readily biodegradable<br>• Other versions: Hydrolite® 6O (510352), Hexanediol Technical (753303)<br>• Patented |
| **Hydrolite® 8 (>99% purity) 109169**<br>**Hydrolite® CG (>98% purity) 199602/ 797076/ 793741** | Caprylyl Glycol | • Hydration: +15% vs untreated skin after 4 hours *(in vivo)*  
• Co-wetting properties: improves the dispersion of pigments  
• Product protection enhancer  
• Suitable for oral care | +++ | • 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  
• Cold process | <br>• Readily biodegradable<br>• Other version: Hydrolite® CGW (510719)<br>• Patented |
| **SymDiol® 68 108580** | 1,2-Hexanediol, Caprylyl Glycol | • Synergistic association  
• Better protection than glycerin against TEWL, equivalent moisturization properties to glycerin *(in vivo)*  
• Product protection enhancer  
• Suitable for oral care | +++ | • Colorless liquid, slight characteristic odor  
• Water soluble  
• Dosage: up to 1.5%  
• pH of use: 3 to 12  
• Up to 100°C  
• Cold process | <br>• Readily biodegradable<br>• Patented |
| **SymDiol® 68T 177441** | 1,2-Hexanediol, Caprylyl Glycol, Tropolone | • Synergistic association  
• Moisturizer  
• Antioxidant  
• Broad-spectrum product protection enhancer  
• Suitable for oral care | +++ | • Clear, nearly odorless liquid  
• Water soluble up to 0.9%  
• Dosage: up to 1%  
• pH of use: 3 to 8  
• Up to 80°C  
• Cold process | <br>• Readily biodegradable<br>• Patented |

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| **SymTriol® 399870** | 1,2-Hexanediol, Caprylyl Glycol, Methylbenzyl Alcohol | • Synergistic association  
• Better protection than glycerin against TEWL, equivalent moisturization properties to glycerin (in vivo)  
• Broad-spectrum product protection enhancer  
• Suitable for oral care | +++ | • 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 | • Readily biodegradable  
• Patented |
| **SymClario® 344028** | Decylene Glycol | • Moisturizer  
• Reduces acne-causing bacteria (in vitro)  
• Sebum normalizer  
• Protects against dandruff and body malodor  
• Product protection enhancer  
• Suitable for oral care | +++ | • Off-white waxy solid, light characteristic odor  
• Soluble in cosmetic esters and glycols  
• Dosage: up to 1%  
• pH of use: 3 to 11  
• Up to 100°C | • Readily biodegradable  
• Patented |
| **SymLite® G8 104528** | Glyceryl Caprylate | • Co-emulsifier  
• Skin barrier protection  
• Moisturizer  
• Product protection enhancer  
• Suitable for oral care  
• Natural Deodorant | +++ | • 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 | • Readily biodegradable  
• RSPO MB |
| **SymSave® H 979940/672096** | Hydroxyaceto-phenone | • Antioxidant  
• Soothing agent  
• Broad-spectrum product protection enhancer  
• Suitable for oral care | +++ | • 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 | • Readily biodegradable  
• Patented |

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