














# responsible antimicrobial solutions for sunscreen

trade name INCI	biodegradable	features and benefits	pH value	rec. use conc. In %	applications			acc. EU Cosmetics Regulation	acc. CIR (USA)	acc. ASEAN Cosmetic Directive	TSSC 2015 (China)	acc. Mercosur	max. temp during production	ISO 16128 % natural origin
					leave-on	rinse-off	wet wipes							
preservative		<ul style="list-style-type: none"> <li>powerful unique blend</li> <li>great fit for challenging formulations &amp; higher SPF</li> <li>provides head space activity</li> <li>deal for facial care</li> <li>uitable for clear formulations</li> <li>suitable for versatile applications</li> </ul>	≤8	0.4 - 1.5	+++	+++	+++	max. 2.50%	max. 2.50%	max. 2.50%	max. 2.50%	max. 2.50%	80°C	37%
		<ul style="list-style-type: none"> <li>great allrounder</li> <li>provides head space activity</li> <li>provides skin moisturization</li> <li>suitable for all kind of formulations (pH-independent, temperature stable, water soluble, low impact on color and odor)</li> <li>ideal for clear formulations</li> <li>suitable for sensitive applications incl. Baby Care</li> </ul>	≤12	0.5 - 1.3	+++	++	+++	max. 1.35%	max. 1.35%	max. 1.35%	max. 1.35%	max. 1.35%	120°C	0%
	please contact us for further information	<ul style="list-style-type: none"> <li>optimized blend with strong fungicidal effect</li> <li>provides head space activity</li> <li>contributes to in-process production hygiene</li> <li>ideal for clear formulations</li> <li>suitable for all kind of leave-on formulations (pH-independent, temperature stable, water soluble, low impact on color and odor)</li> <li>suitable for sensitive applications incl. Baby Care</li> </ul>	≤12	0.5 - 1.0	+++	+	+++	max. 1.11%	max. 1.11%	max. 1.11%	-	max. 1.11%	120°C	0%

	trade name INCI	biodegradable	features and benefits	pH value	rec. use conc. in %	applications			acc. EU Cosmetics Regulation	acc. CIR (USA)	acc. ASEAN Cosmetic Directive	TSSC 2015 (China)	acc. Mecorsur	max. temp during production	ISO 16128 % natural origin
						leave-on	rinse-off	wet wipes							
preservative	<b>euxyl™ pe 9010</b> preservative INCI: Phenoxyethanol (and) Ethylhexylglycerin		<ul style="list-style-type: none"> <li>market-leading preservative blend</li> <li>provides head space activity</li> <li>proven to being microbiome gentle</li> <li>ideal for clear formulations</li> <li>suitable for all kind of leave-on formulations (pH-independent, temperature stable, water soluble, low impact on color and odor)</li> <li>suitable for sensitive applications incl. Baby Care</li> </ul>	≤12	0.5 - 1.0	+++	+	+++	max. 1.11%	max. 1.11%	max. 1.11%	max. 1.11%	max. 1.11%	120°C	0%
multifunctional	<b>sensiva™ sc 80</b> multifunctional INCI: Propanediol (and) Caprylyl Glycol (and) Caprylhydroxamic Acid		<ul style="list-style-type: none"> <li>powerful multifunctional blend</li> <li>strong fungicidal efficacy</li> <li>great fit for challenging formulations &amp; higher SPF</li> <li>shows superb performance at wide pH-range</li> <li>provides antioxidant and well-aging benefits</li> <li>moisturizes skin &amp; enhances skin feel</li> <li>no influence on the color of final product</li> </ul>	≤8	0.3 - 1.5	+++	+++	+++	no restrictions for the use in cosmetics	max. 5.0% (leave on) max. 6.0% (rinse-off)	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	80°C	64%
	<b>sensiva™ pa 40</b> multifunctional INCI: Phenylpropanol (and) Propanediol (and) Caprylyl Glycol (and) Tocopherol		<ul style="list-style-type: none"> <li>powerful multifunctional blend</li> <li>strong fungicidal efficacy</li> <li>great fit for challenging formulations &amp; higher SPF</li> <li>provides moisturizing and emolliency</li> <li>appealing floral scent</li> </ul>	≤12	0.5 - 1.5	+++	++	++	no restrictions for the use in cosmetics	safe as used	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	120°C	30%
	<b>phyteq™ raspberry one</b> multifunctional INCI: Phenylpropanol (and) Propanediol (and) Raspberry Ketone		<ul style="list-style-type: none"> <li>innovative easy-to-use liquid multifunctional blend</li> <li>strong fungicidal efficacy</li> <li>suitable for difficult to preserve leave-on formulation</li> <li>provides antioxidant and well-aging properties</li> <li>appealing slight floral scent</li> </ul>	≤8	0.5 - 2.0	+++	++	++	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	80°C	37%
booster	<b>sensiva™ sc 10</b> multifunctional INCI: Ethylhexylglycerin (and) Caprylyl Glycol		<ul style="list-style-type: none"> <li>multifunctional ingredient</li> <li>booster for antimicrobials</li> <li>provides moisturizing and emolliency</li> <li>suitable for sensitive applications incl. Baby Care</li> </ul>	≤12	0.5 - 2.0	+++	+	+++	no restrictions for the use in cosmetics	max. 6.66% (leave on) max. 7.14% (rinse-off)	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	120°C	0%
	<b>sensiva™ sc 50</b> multifunctional INCI: Ethylhexylglycerin		<ul style="list-style-type: none"> <li>market-leading multifunctional ingredient</li> <li>booster for antimicrobials</li> <li>skin care additive and emollient</li> <li>boosting and fixing of fragrance ingredients</li> <li>suitable for sensitive applications incl. Baby Care</li> </ul>	≤12	0.3 - 1.0	+++	+	+++	no restrictions for the use in cosmetics	max. 2.0% (leave on) max. 8.0% (rinse-off)	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	120°C	0%

trade name INCI	biodegradable	features and benefits	pH value	rec. use conc. in %	applications			acc. EU Cosmetics Regulation	acc. CIR (USA)	acc. ASEAN Cosmetic Directive	TSSC 2015 (China)	acc. Mercosur	max. temp during production	ISO 16128 % natural origin
					leave-on	rinse-off	wet wipes							
<b>effisin™ pg</b> multifunctional INCI: Pentylene Glycol		<ul style="list-style-type: none"> <li>well-known multifunctional ingredient</li> <li>adds to microbial stability</li> <li>provides moisturizing and emolliency</li> <li>ideal for clear formulations</li> <li>ideal for face care formulations</li> <li>suitable for sensitive applications incl. Baby Care</li> </ul>	≤12	1.0 - 5.0	++	++	++	no restrictions for the use in cosmetics	safe as used	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	120°C	0%
<b>effisin™ pg natural</b> multifunctional INCI: Pentylene Glycol		<ul style="list-style-type: none"> <li>well-known multifunctional ingredient</li> <li>adds to microbial stability</li> <li>provides moisturizing and emolliency</li> <li>ideal for clear formulations</li> <li>ideal for face care formulations</li> <li>suitable for sensitive applications incl. Baby Care</li> <li>ideal for certified natural formulations: COSMOS validated</li> </ul>	≤12	1.0 - 5.0	++	++	++	no restrictions for the use in cosmetics	safe as used	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	120°C	100%
<b>effisin™ hd</b> multifunctional INCI: 1,2-Hexanediol		<ul style="list-style-type: none"> <li>well-known multifunctional ingredient</li> <li>adds to microbial stability</li> <li>provides moisturizing and emolliency</li> <li>ideal for all face care formulations</li> <li>suitable for sensitive applications incl. Baby Care</li> </ul>	≤12	0.5 - 3.0	+++	++	+++	no restrictions for the use in cosmetics	safe as used	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	120°C	0%
<b>phyteq™ raspberry i</b> multifunctional INCI: Raspberry Ketone		<ul style="list-style-type: none"> <li>adds to microbial stability</li> <li>strong antioxidant and free radical scavenger benefits</li> <li>improves skin biology - anti-inflammation claim ex vivo</li> <li>ideal for leave-on formulations</li> </ul>	≤8	0.3 - 1.0	+++	++	++	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	80°C	0%
<b>phyteq™ raspberry n</b> multifunctional INCI: Raspberry Ketone		<ul style="list-style-type: none"> <li>adds to microbial stability</li> <li>strong antioxidant and free radical scavenger benefits</li> <li>improves skin biology - anti-inflammation claim ex vivo</li> <li>ideal for leave-on formulations</li> </ul>	≤8	0.3 - 1.0	+++	++	++	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	no restrictions for the use in cosmetics	80°C	100%

<sup>1</sup> not available in the US

# who helps sunscreen protection last?

we do.

Driven by increasing consumer awareness of the damaging effects of skin exposure to UV-rays, sun protection has become more important than ever before, leading to an increased consumer expectation towards sunscreen products - not only in terms of higher SPF value, but also added skin benefit values beyond sun protection.

Preservation of sunscreen formulations with a higher SPF is a complex challenge for formulators. The extent of the challenge will ultimately depend on the UV-filter choice and final formula composition. Selecting the right ingredients that deliver an

effective level of protection against bacteria, yeast and mold can be the ultimate challenge. Ashlands global team of solvers provides the expertise needed to support the selection of the suitable antimicrobial solutions for sunscreen products.

Please contact us for further details and recommendations for your preservative challenges.

## definitions

### biodegradable

Has attained a sufficient level of biodegradation that meets the requirements for 'ready' or 'inherent' according to OECD or related methods such as, 301, 302, or 306, or product has been assessed as being biodegradable based on a read-across to a chemical with similar structure or the product components have been analyzed for biodegradation potential

#### regional centers

**North America** —  
Bridgewater, NJ USA  
Tel: +1 800 505 8984

**Europe** — Switzerland  
Tel: +41 52 560 5538

**Middle East, Africa** —  
Istanbul, Turkey  
Tel: +90 216 538 08 00

**India** — Mumbai  
Tel: +91 22 61484646

**Asia Pacific** — Singapore  
Tel: +65 6775 5366

**China** — Shanghai  
Tel: +86 21 6090 6606

**Latin America** —  
São Paulo, Brazil  
Tel: +5511 3649 0455

[ashland.com/sun](http://ashland.com/sun)

The information contained in this brochure and the various products described are intended for use only by persons having technical skill and at their own discretion and risk after they have performed necessary technical investigations, tests and evaluations of the products and their uses. Certain end uses of these products may be regulated pursuant to rules or regulations governing medical devices, drug uses, or pesticidal or antimicrobial uses. It is the end user's responsibility to determine the applicability of such regulations to its products.

All statements, information, and data presented herein are believed to be accurate and reliable, but are not to be taken as a guarantee of fitness for a particular purpose, or representation, express or implied, for which seller assumes legal responsibility. No freedom to use any patent owned by Ashland, its subsidiaries, or its suppliers is to be inferred.

® Registered trademark, Ashland or its subsidiaries, registered in various countries

™ Trademark, Ashland or its subsidiaries, registered in various countries

© 2023, Ashland / PHC23-164

\* third party registered



Find the product you need with our antimicrobial selector tool.

