

# Sun Care Portfolio – UV Filters

## Overview

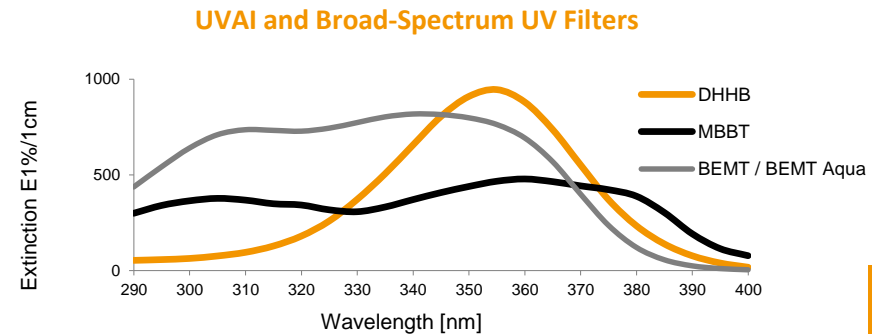
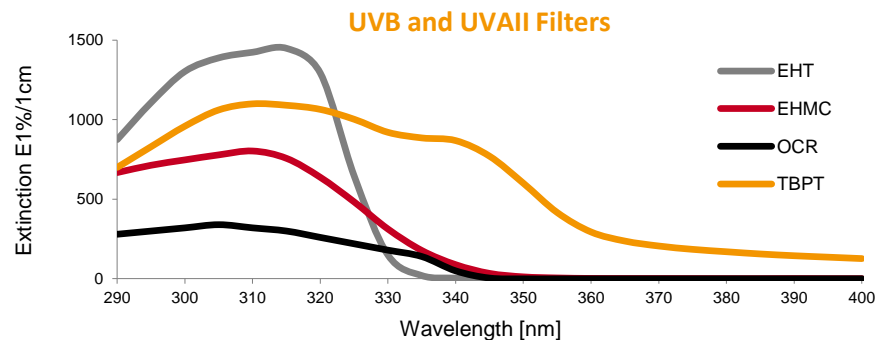
Products	INCI	USAN	Range of Absorption			Absorbance Maximum Wavelength (nm)	Phase in Application	Appearance	Possible Application		Remarks
			UVB	UVA II	UVA I				Skin Protection	Product Protection	
<b>Tinosorb® A2B</b>	<b>TBPT</b> Tris-Biphenyl Triazine (nano)	—	■	■		310	Water	Dispersion of organic Particles	Yes	No	<ul style="list-style-type: none"> <li>Most efficient UVB/A II filter</li> <li>Application in all market segments</li> <li>Boosting effect in UVA I range</li> </ul>
<b>Tinosorb® M</b>	<b>MBBT</b> Methylene Bis-Benzo-triazolyl Tetramethylbutyl-phenol (nano)	Bisoc-trizole	■	■	■	305, 360	Water	Dispersion of organic Particles	Yes	No	<ul style="list-style-type: none"> <li>Unique photo-stable broad-spectrum UV filter for the water phase</li> <li>High contribution to UVA-PF and critical wavelength (CW)</li> <li>Synergy effect with oil soluble UV filters due to triple action</li> <li>The only white-colored UVA-absorber</li> </ul>
<b>Tinosorb® S</b>	<b>BEMT</b> Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine	Bemo-trizinol	■	■	■	310, 345	Oil	Powder	Yes	No	<ul style="list-style-type: none"> <li>Most efficient oil soluble broad-spectrum UV filter</li> <li>Excellent photo-stability for long lasting protection</li> <li>Highest contribution to SPF and UVA-PF already at low concentration</li> <li>Outstanding stabilizer for photo-unstable UV filters</li> <li>Tinosorb® S Lite Aqua: water-dispersible form of Tinosorb® S for more formulation flexibility.</li> </ul>
<b>Tinosorb® S Lite Aqua</b>	...(and) Acrylates/C12-22 Alkyl Methacrylate Copolymer						Water	Polymer Dispersion	Yes	No	
<b>Uvinul® A Plus</b>	<b>DHHB</b> Diethylamino Hydroxybenzoyl Hexyl Benzoate	—		■	■	354	Oil	Granular	Yes	Yes	<ul style="list-style-type: none"> <li>Photo-stability for reliable and long-lasting protection</li> <li>Efficient shielding against UVA radiation</li> <li>Excellent formulation flexibility and solubility</li> <li>Easy achievement of EU recommendation (UVA-PF/SPF≥1/3)</li> </ul>
<b>Univul® Easy</b>	Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine (and) Diethylamino Hydroxybenzoyl Hexyl Benzoate (and) Ethylhexyl Methoxycinnamate (and) Ethylhexyl Triazone	—	■	■	■	310, 314, 345, 354	Oil	Liquid	Yes	No	<ul style="list-style-type: none"> <li>The easy way to achieve SPF and broad-spectrum UV protection</li> <li>Simply adding water to Univul® Easy gives a fine O/W emulsion</li> <li>Make your unique product by adding only thickener, preservatives and fragrances</li> <li>Cold processable</li> </ul>
<b>Uvinul® MC 80</b>	<b>EHMC</b> Ethylhexyl Methoxycinnamate	Octinoxate	■			310	Oil	Liquid	Yes	No	<ul style="list-style-type: none"> <li>Excellent solvent for other crystalline UV filters</li> <li>UVB filter with high cosmetic elegance</li> <li>Odorless, colorless, suitable for perfume-free formulations</li> </ul>
<b>Uvinul® N 539 T</b>	<b>OCR</b> Octocrylene	Octocrylene	■			302	Oil	Liquid	Yes	Yes	<ul style="list-style-type: none"> <li>Photo-stable UVB filter with good solvent properties</li> <li>Efficient stabilizer for photo-unstable UV filters</li> <li>Broad UVB absorbance for balanced UV protection</li> </ul>
<b>Uvinul® T 150</b>	<b>EHT</b> Ethylhexyl Triazone	Octyltriazone	■			314	Oil	Powder	Yes	No	<ul style="list-style-type: none"> <li>Best efficiency even at lowest UV filter concentration</li> <li>Highest photo-stable absorption of all available UVB filters</li> <li>Odorless, colorless, suitable for perfume-free formulations</li> </ul>
<b>Z-Cote®</b>	Zinc Oxide (nano)	ZnO	■	■	■	370	Water	Powder	Yes	No	<ul style="list-style-type: none"> <li>Inorganic broad-spectrum UV absorption</li> <li>Synergistic with organic UV filters</li> <li>enabling elegant and gentle formulations</li> </ul>
<b>Z-Cote®-HP1</b>	Zinc Oxide (and) Triethoxycaprylylsilane (nano)						Oil				

# Sun Care Portfolio – UV Filters

## Regulatory Status and Extinction Spectra

Products	EU & Switzerland	India	Taiwan	Korea	Japan <sup>5)</sup>	China	Australia	ASEAN	USA	Canada	Brazil	Mexico
Tinosorb® A2B <sup>1)</sup>	10%	-	-	-	10%	-	10%	10%	-	-	10%	-
Tinosorb® M <sup>1)</sup>	10%	10%	10%	10%	10%	10%	10%	10%	2)	3)	10%	10%
Tinosorb® S	10%	10%	10%	10%	3%	10%	10%	10%	2)	3)	10%	10%
Tinosorb® S Lite Aqua <sup>1)</sup>	10%	10%	10%	10%	3%	10%	10%	10%	2)	3)	10%	10%
Uvinul® A Plus	10%	10%	10%	10%	10%	10%	10%	10%	-	-	10%	10%
Uvinul® Easy	50%	50%	50%	37%	50%	50%	50%	50%	-	-	50%	50%
Uvinul® MC 80	10%	10%	10%	0.5-7.5%	20%	10%	10%	10%	7.5%	8.5%	10%	10%
Uvinul® N 539 T	10%	10%	10%	0.5-10%	20%	10%	10%	10%	10%	12%	10%	10%
Uvinul® T 150	5%	5%	5%	0.5-5%	5%	5%	5%	5%	2)	-	5%	5%
Z-Cote®, Z-Cote® HP 1	25%	25%	20%	25%	No limit	11%	25%	25%	25%	25%	No limit	25%

Explanation: <sup>1)</sup> Approval as active, e.g. 10% Tinosorb® M active = 20% Tinosorb® M; 10% Tinosorb® A2B active = 20% Tinosorb® A2B; 10% Tinosorb® S active = 50% Tinosorb® S Lite Aqua  
<sup>2)</sup> TEA (Time and Extend Application) pending at FDA <sup>3)</sup> Via DIN application <sup>4)</sup> TEA (Time and Extend Application) intended <sup>5)</sup> Japan: limit except for cosmetics coming into contact with mucous membranes



Although all statements and information in this advertisement are believed to be accurate and reliable, they are presented gratis and for guidance only, and risks and liability for results obtained by use of the products or application of the suggestions described are assumed by the user. The claims and supporting data provided in this publication have not been evaluated for compliance with any jurisdiction's regulatory requirements and the results reported may not be generally true under other conditions or in other matrices. Users must evaluate what claims and information are appropriate and comply with a jurisdiction's regulatory requirements. SELLER MAKES NO WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, BY FACT OR LAW, INCLUDING WARRANTIES OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE  
 BASF Personal Care and Nutrition GmbH | Rheinpromenade 1 | 40789 Monheim am Rhein | Phone: +49-2173-4995-0