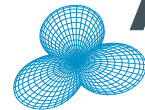




Sun care

AakoSun
UV-filter range

The complete range
for protection



AAKO.



Aako provides a full
range of UV-absorbers

Who we are

Chemistry with people

Aako was founded in 1945 and established itself as a supplier for speciality chemicals in Europe, North Africa and Middle East. Through consistent investment in its employees, customers and business partners we are successful for more than 70 years. Aako has become synonymous with the phrase “Chemistry with people”.

One of our most exciting products are Sun care ingredients. In recent years a lot of importance is attached to the need for proper protection against sunlight. On top of this European regulations impose strict requirements on suntan lotion products. Seasonal impact as well as consumer trends complete the picture. Against this background suntan formulators face a challenging assignment where stable and consistent product quality, undisrupted supplies and compliance with the latest guidelines are key criteria to operate successfully in the market.

Based on three pillars: high-quality service, long-term business relationships and a thorough knowledge of products and markets, Aako provides a full range of UV-absorbers and auxiliary materials that contribute to the formulation of safe sunscreen lotions for consumers. In addition we keep local stock to guarantee continuity of supply. Are your formulations impacted by regulation? No worries, we have a Regulatory department that can help you. In more than 70 years Aako has proven to be a leader in the development of new products and opportunities that demonstrates our ambition to become a full service supplier to the Sun care market.

Range of UV-filters

a complete package for the formulation of sunscreens

With our range of UV-filters and related ingredients we provide a complete package for the formulation of sunscreens. The UV-filters are there to absorb, reflect, scatter and block ultraviolet radiation. They are formulated into personal care products to protect skin and hair from the damaging effects of sunlight. Also they are used as stabilizers, to protect the integrity of your finished product (color and fragrance).

● Organic UV-filters:

The organic filters absorb the ultraviolet light and convert it into a small amount of heat. Organic filters are the most commonly used UV-filters but they are often supplemented in formulations with inorganic filters to increase the efficacy. We can offer a wide range of UVB and UVA filters.

● Inorganic UV-filters:

Inorganic filters can reflect, scatter and absorb the UV light depending on the size of the particles. The absorption and also efficacy is increased when the size is smaller. Inorganic filters protect against both UVA and UVB radiation.

● Auxiliary raw materials:

Materials that are often used in sunscreens formulations i.e. ingredients to improve the sensory properties, create a waterproof film, emulsifiers or materials to improve the solubility of the UV-filters.

Organic UV-filters

Product name	INCI name - USAN	Key properties
AakoSun AVB	Butyl Methoxydibenzoylmethane <i>Avobenzone</i>	AakoSun AVB is an oil-soluble UVA filter, particularly suitable for water-repellent and water-resistant formulations.
AakoSun BEMT	Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine <i>Bemotrizinol</i>	AakoSun BEMT is a broad spectrum UVAI, UVAIL & UVB absorber. Very small concentrations are required to achieve a high SPF value. AakoSun BEMT is very soluble in cosmetic emollients.
AakoSun BP3	Benzophenone-3 <i>Oxybenzone</i>	AakoSun BP3 is an oil-soluble broadband and effective absorber of UVA & UVB radiation.
AakoSun BP4	Benzophenone-4 <i>Sulisobenzone</i>	AakoSun BP4 is a water-soluble ultraviolet UVA and UVB absorber widely used in sunscreen preparations.
AakoSun BTZ	Diethylhexyl Butamido Triazone <i>Iscotrizinol</i>	AakoSun BTZ is a broad spectrum UVAIL & UVB absorber. Very small concentrations are required to achieve a high SPF value. AakoSun BTZ is very soluble in cosmetic emollients.
AakoSun EHS	Ethylhexyl Salicylate <i>Octisalate</i>	AakoSun EHS is a very effective oil-soluble UVB absorber and has a wide use in sunscreen and skin care.
AakoSun HMS	Homosalate <i>Homosalate</i>	AakoSun HMS is an oil-soluble UVB filter that is approved for use in Sun care preparations in many countries worldwide.
AakoSun MBBT	Methylene Bis-Benzotriazolyl Tetramethylbutylphenol, Aqua, Decyl Glucoside, Propylene Glycol, Xanthan Gum <i>Bisotrizole</i>	AakoSun MBBT is a dispersion of organic pigments in water giving broad-spectrum UVAI, UVAIL and UVB protection with high absorptivity. The product can easily be dispersed in the water phase of emulsions.
AakoSun OCR	Octocrylene <i>Octocrylene</i>	AakoSun OCR is an oil-soluble UVB filter, particularly suitable for water-repellent and water-resistant formulations. It also acts as a photo stabilizer in cosmetic products.
AakoSun OMC	Ethylhexyl methoxycinnamate <i>Octinoxate</i>	AakoSun OMC is a UVB filter widely used in sunscreen and skin care products. Product is available with or without BHT stabilizer.
AakoSun OTZ	Ethylhexyl Triazone <i>Octyl Triazone</i>	AakoSun OTZ is an outstanding UVAIL & UVB filter with high absorptivity. Only little concentrations are required to achieve a high SPF value.
AakoSun PBSA	Phenylbenzimidazole Sulfonic Acid <i>Ensulizole</i>	AakoSun PBSA is a water-soluble UVB filter, with excellent sensory characteristics on the skin.

Inorganic UV-filters

Titanium Dioxide powder types

Product name	Surface treatment	Average	TiO ₂ Content	Property of surface
AakoSun TiO₂ SL	Silica	170 nm	82%	Hydrophilic
AakoSun TiO₂ X	Coating upon request	170 nm	80%	Hydrophobic / Hydrophilic

TiO₂ Dispersions available upon request

Zinc Oxide powder types

Product name	Surface treatment	Average	ZnO Content	Property of surface
AakoSun ZnO	None	40 nm	>99%	Hydrophilic

ZnO Dispersions available upon request

Auxiliary raw materials

Product name	INCI name	Function	Key properties
AakoEmo AB-A	C12-15 Alkyl Benzoate	Emollient	AakoEmo AB-A is used as emollient, solubilizer and lubricant in a wide range of personal care formulations. It has low (< 50 ppm) Benzyl Benzoate content. In sunscreens with titanium dioxide it acts as a perfect emollient.
AakoEmo OS	Ethylhexyl Stearate	Emollient	AakoEmo OS is an excellent moisturizer with a low comedogenicity medium spreading properties. It gives the skin a soft and smooth appearance while preventing water loss.
AakoEmo DIIPA	Diisopropyl Adipate	Emollient	AakoEmo DIIPA is used as emollient, solubilizer and lubricant in a wide range of personal care formulations. It has high spreading properties and gives the skin a soft and smooth appearance. Very suited for ethanol based formulations.
AakoEmo TEC	Triethyl Citrate	Emollient	AakoEmo TEC is used as emollient, solubilizer and lubricant in a wide range of personal care formulations. It has high spreading properties and gives the skin a soft and smooth appearance.
AakoEmo DOE	Dicaprylyl Ether	Emollient	AakoEmo DOE is used as emollient, solubilizer and lubricant in a wide range of personal care formulations. It has high spreading properties and gives the skin a soft and smooth appearance.
AakoEmo DCC	Dicaprylyl Carbonate	Emollient	AakoEmo DCC is used as emollient, solubilizer and lubricant in a wide range of personal care formulations. It has high spreading properties and gives the skin a soft feeling during application.
AakoSil D5	Cyclopentasiloxane	Emollient	AakoSil D5 is used as emollient and lubricant in a wide range of personal care formulations. It has high spreading properties and gives the skin a soft and smooth appearance.
AakoCool ML	Menthyl Lactate	Cooling agent	AakoCool ML is a mild product for the skin and gives long lasting cooling effects. Ideal for incorporation in after sun formulations. We also have L-Menthol available for more intense and faster cooling effects. Both products can be used synergistically.
AakoTan DHA	Dihydroxy Acetone	Self Tanner	AakoTan DHA is the main active ingredient in all sunless tanning skincare preparations. It may be used alone or combined with other tanning components. DHA is considered the most effective sun-free tanning additive.
AakoFilm Si1	Dimethicone and Trimethylsiloxysilicate	Filmformer SPF-booster	AakoFilm Si1 is a film former with a dry touch. Also available with Cyclopentasiloxane (AakoFilm Si2) instead of Dimethicone for faster drying. AakoFilm Si1 and AakoFilm Si2 can be used in anhydrous formulations and emulsions, with or without silicones.
AakoEmu PCP	Potassium Cetyl Phosphate	Emulsifier Filmformer SPF-booster	The AakoEmu PCP is widely recognized as the most unique and versatile emulsifier. Used over a wide pH range, it delivers cost-effective, homogeneous and very stable sun and skin care emulsions. Compared to other alternatives the AakoEmu PCP is free of halogenated compounds. Yields homogeneous water-repellent films with SPF boosting results.



Light touch
and modern
preservatives

Fragrance free,
alcohol free,
no odour

Light and
cost
effective
5 stars product



Guide formulations

Smooth light touch uniform protection SPF 30 (with 5 stars)

1. Heat water phase 1 and oil phase 2 separately to 70 °C under stirring.
2. Homogenize the oil phase for 2 min. with Ultra Turrax at max. speed to finely disperse the Titanium Dioxide at 70 °C.
3. Add the oil phase to the water phase under stirring at 70 °C.
4. Homogenize the emulsion for 2 min with Ultra Turrax at max. speed.
5. Cool down under stirring to 45 °C, add phase 3 and homogenize for 1 min at max. speed. Cool down to 30 °C and adjust the pH to 6,2-6,8.

	Ingredient	INCI	%
Phase 1	Aqua/water	Aqua/water	q.s.
	Glycerin	Glycerin	3
	Carbopol EDT 2020	Acrylates/C10-30 Alkyl Acrylate Crosspolymer	0.25
	AakoSun PBSA	Phenylbenzimidazole Sulfonic Acid	1.8
	AMP Ultra 2000	Aminomethyl Propanol	0.6
	Tetrasodium EDTA	Tetrasodium EDTA	0.01
Phase 2	Lanette E	Sodium Cetearyl Sulfate	0.3
	Cutina GMS-V	Glyceryl Monostearate	1.2
	Cetearyl Alcohol 50/50	Cetearyl Alcohol	1.2
	AakoSun OCR	Octocrylene	4
	AakoSun AVB	Butyl Methoxydibenzoylmethane	4.2
	AakoSil D5	Cyclopentasiloxane	0.5
	AakoSun EHS	Ethylhexyl Salicylate	4.9
	AakoEmo OS	Ethylhexyl Stearate	5
	AakoEmo AB-A	C12-15 Alkyl Benzoate	6
AakoSun TiO2 SL	Titanium Dioxide (nano), Silica	1	
Phase 3	Decylene Glycol	Decylene Glycol	0.1
	Phenoxyethanol	Phenoxyethanol	0.3
	JM acticare	Diethylhexyl Sodium Sulfosuccinate, Titanium Dioxide, Propylene Glycol, Silver Chloride	0.15
	Piroctone Olamine	Piroctone Olamine	0.05
	Tinosorb A2B	Tris-Biphenyl Triazine (nano), Decyl Glucoside, Butylene Glycol, Xanthan Gum, Disodium Phosphate	1
	Caprylyl Glycol	Caprylyl Glycol	0.2

Measured SPF=35, UVA Colipa, 5 Stars Boots.



Fragrance
and alcohol free,
less sticky,
ultra-light formula



Guide formulations

Light touch SPF 50+

1. Heat water phase 1 and oil phase 2 separately to 70 °C under stirring.
2. Homogenize the oil phase for 2 min. with Ultra Turrax at max. speed to finely disperse the Titanium Dioxide at 70 °C.
3. Add the oil phase to the water phase under stirring at 70 °C.
4. Homogenize the emulsion for 2 min with Ultra Turrax at max. speed.
5. Cool down under stirring to 45 °C, add phase 3 and homogenize for 1 min at max. speed. Cool down to 30 °C and adjust the pH to 6,4-6,8.

	Ingredient	INCI	%
Phase 1	Aqua/water	Aqua/water	q.s.
	Glycerin	Glycerin	4
	AakoSun PBSA	Phenylbenzimidazole Sulfonic Acid	1.6
	AMP Ultra 2000	Aminomethyl Propanol	0.75
	Avicel PC 611	Microcrystalline Cellulose (and) Cellulose Gum	0.5
	Carbopol EDT 2020	Acrylates/C10-30 Alkyl Acrylate Crosspolymer	0.3
Phase 2	AakoSun OMC	Ethylhexyl Methoxycinnamate	0.3
	Eumulgin SG	Sodium Stearoyl Glutamate	0.5
	Cetearyl Alcohol 50/50	Cetearyl Alcohol	0.6
	Cutina GMS-V	Glyceryl Monostearate	0.8
	Cutina PES	Pentaeritryl Distearate	0.8
	AakoEmo AB-A	C12-15 Alkyl Benzoate	3
	AakoEmo DOE	Dicaprylyl Ether	3
	AakoSun BTZ	Diethylhexyl Butamido Triazone	1.5
	AakoSun OCR	Octocrylene	3.3
	AakoSun AVB	Butyl Methoxydibenzoylmethane	3.3
	AakoSun EHS	Ethylhexyl Salicylate	4.8
	Eusolex T-2000	Titanium Dioxide (nano), Alumina, Simethicone	1.8
	AakoEmo DCC	Dicaprylyl Carbonate	3
	AakoSil D5	Cyclopentasiloxane	0.98
AakoSun BEMT	Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine	1.8	
Phase 3	Shea butter	Butyrospermum Parkii Butter	0.95
	Caprylyl Glycol	Caprylyl Glycol	0.2
	JM acticare	Diethylhexyl Sodium Sulfosuccinate, Titanium Dioxide, Propylene Glycol, Silver Chloride	0.15
	Piroctone Olamine	Piroctone Olamine	0.05

Measured SPF=62, UVA-PF 28.8



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