

Sun Care

UV-filters range for protection.



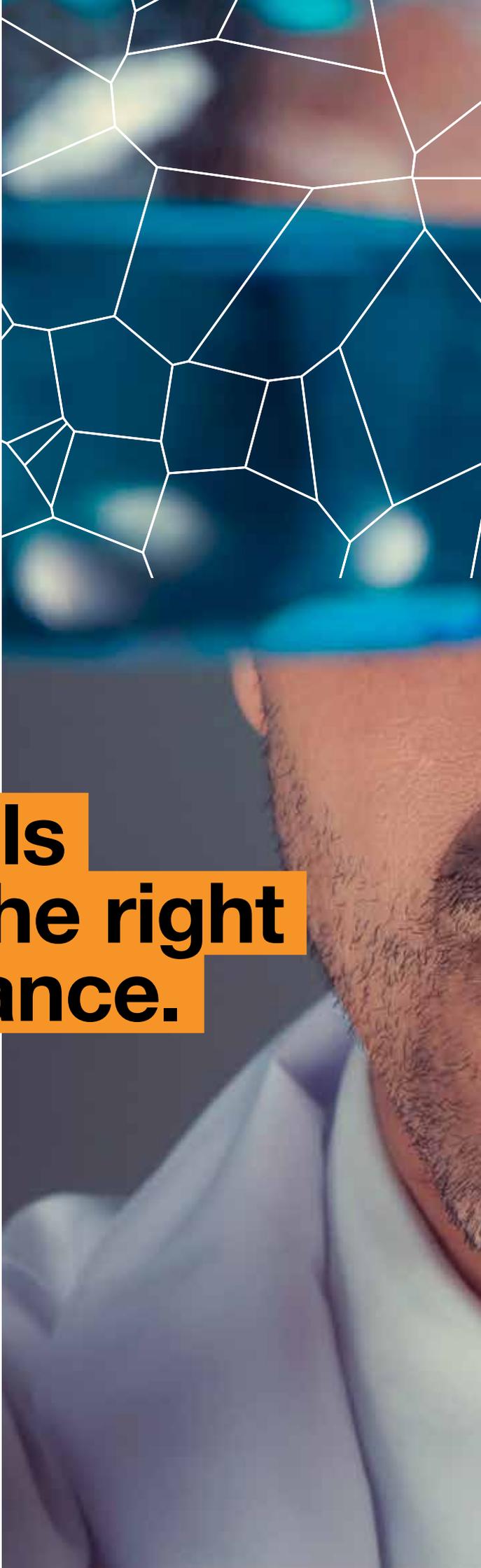
AAKO.

**Chemicals
require
perfection.**

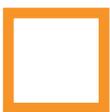


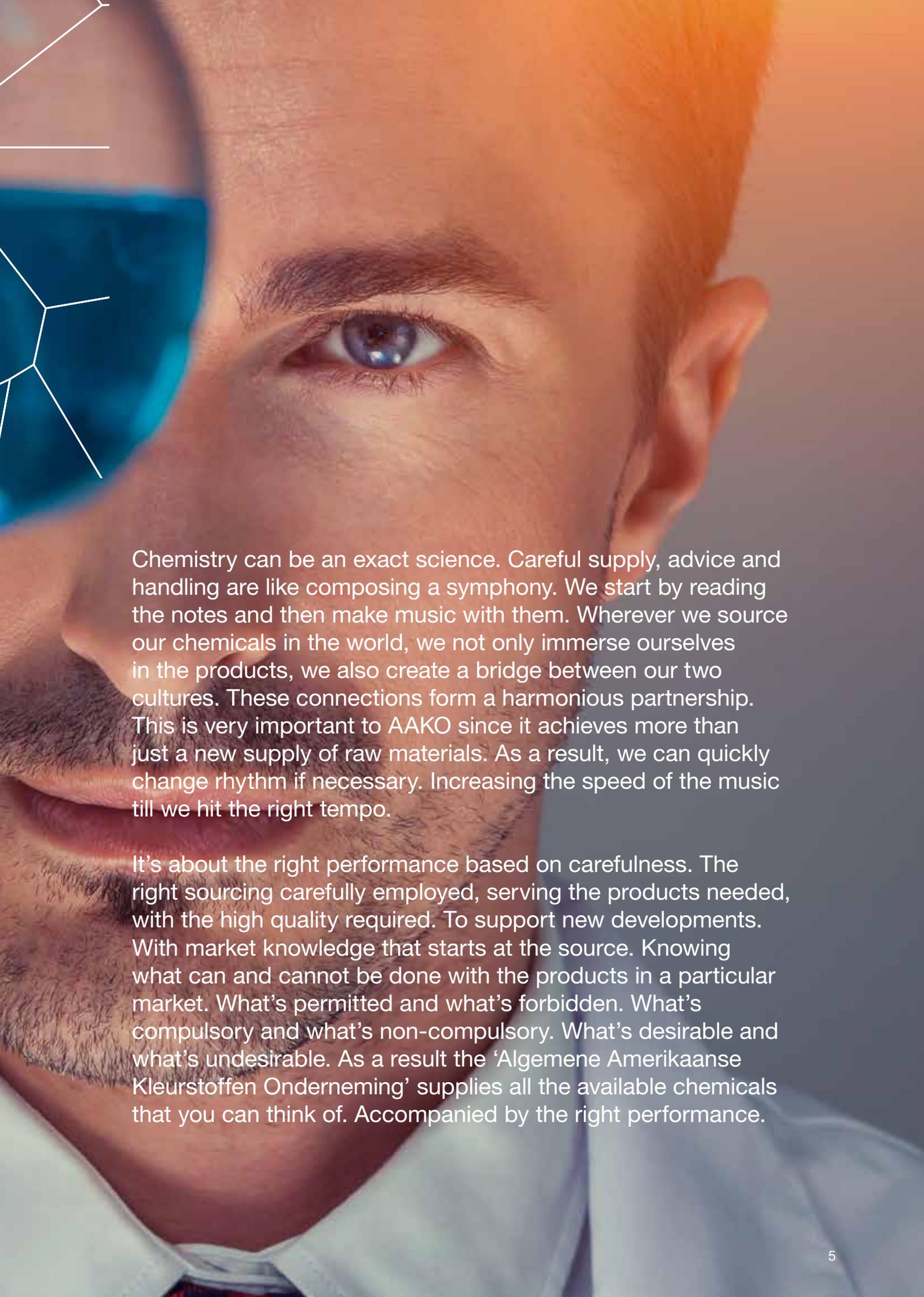
 Chemistry is the work of people. And people who work with chemicals must aim for perfection. That's been AAKO's humble opinion since 1945. It was the start of a family business that carefully refines its perfection year in, year out and has made that refinement a daily ritual. It's a commitment to care that you encounter across the full range of our services. Our in-depth knowledge of regional markets. The reliable science behind our products, the opportunities and the applications. And our familiarity with diverse industries.

For our suppliers, located throughout the world, we are a safe haven. We know exactly how to get their products to the right place. In the right way, under the right conditions, conforming to the right regulations, the right restrictions, via the right logistic steps. And to the right customers of course. Customers who can rely on AAKO's detailed knowledge of what makes a high-quality product. Bulk chemicals, speciality chemicals, fine chemicals, if it passes through our hands, it goes through the most careful process you could imagine.



**Chemicals
require the right
performance.**





Chemistry can be an exact science. Careful supply, advice and handling are like composing a symphony. We start by reading the notes and then make music with them. Wherever we source our chemicals in the world, we not only immerse ourselves in the products, we also create a bridge between our two cultures. These connections form a harmonious partnership. This is very important to AAKO since it achieves more than just a new supply of raw materials. As a result, we can quickly change rhythm if necessary. Increasing the speed of the music till we hit the right tempo.

It's about the right performance based on carefulness. The right sourcing carefully employed, serving the products needed, with the high quality required. To support new developments. With market knowledge that starts at the source. Knowing what can and cannot be done with the products in a particular market. What's permitted and what's forbidden. What's compulsory and what's non-compulsory. What's desirable and what's undesirable. As a result the 'Algemene Amerikaanse Kleurstoffen Onderneming' supplies all the available chemicals that you can think of. Accompanied by the right performance.

Our distribution is well organized. Logistics must be perfectly arranged. No delays. An agreement is an agreement. We rely on our unmatched market knowledge every day, and our contacts help where they can. Our knowledge of legislation and regulations, formalities, a wide range of markets, to say nothing of our product knowledge, are all at your disposal. At a moment's notice if necessary. We have been carefully developing our knowledge all these years. Ready for the times we will need it. And the result? We can't manage a day without it.

**Almost as well
structured as the
chemistry itself.**

A customer must be confident that everything is well organized. After all, the chemical sector is hardly a typical industry. It's an industry where safety, quality standards, protocols, registrations and restrictions set the tone. That's precisely why we are so careful at AAKO. In everything, with everything. Check, check and double check. We like to go through everything three, four or five times. Weighing everything up with our knowledge of regulatory matters. Because we know everything about the production and trading of chemical materials, we can offer the utmost certainty.

**Our
markets**

Cleaning

Coatings

**Crop
Protection**

Detergents

Feed

Food

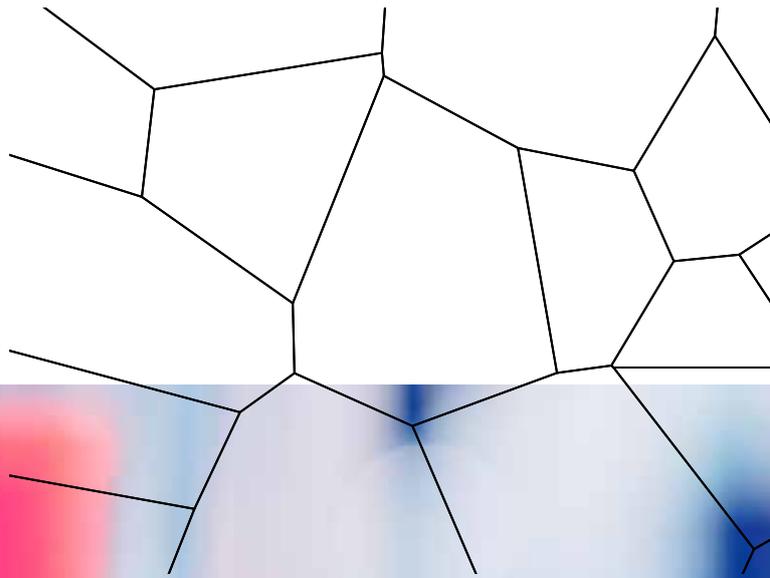
**Industrial
Chemicals**

**Personal &
Hair Care**

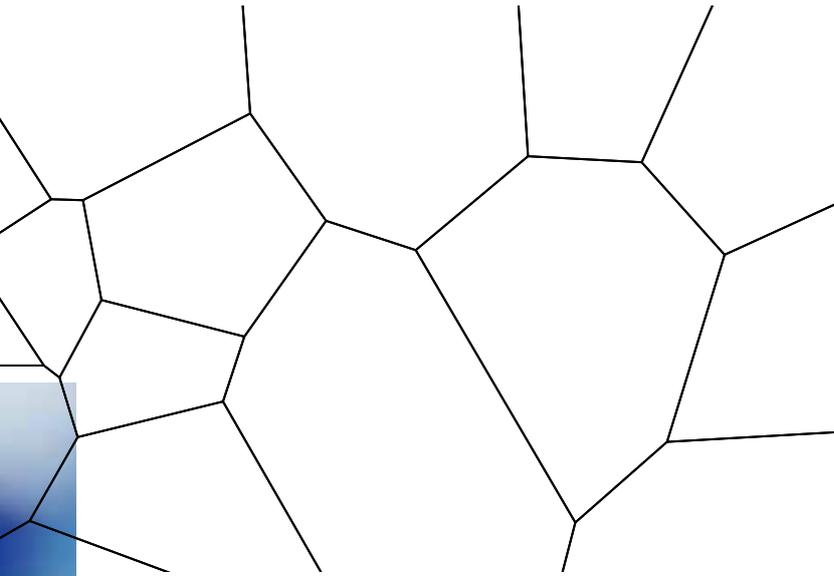
Pharma

**Public
Health**

Sun Care



**Chemicals
require excellent
treatment.**



At AAKO we know the industry's unwritten rules and regulations. We have digitized that knowledge. It's also in our heads. Immediately accessible. Ready to be shared. We are careful with all procedures. And we are thorough when it comes to our – often local – inventory. Details? How minute do you want them? We know them all or can look them up.

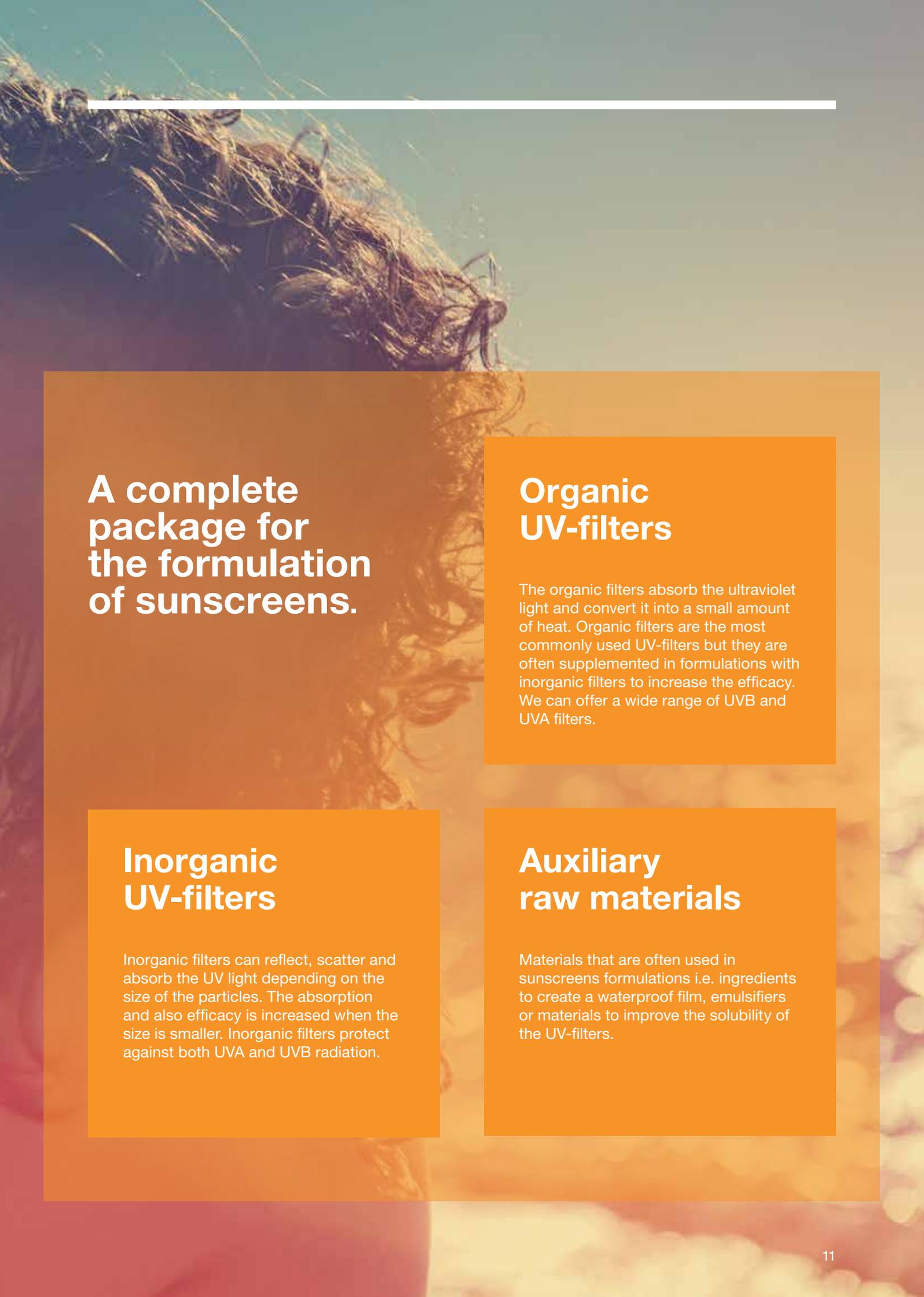
We are conscientious with our contacts and meticulous, careful and accurate with our products. The same applies to our distribution, regulations and the way we do our sourcing. Every detail on time, accurate and careful.

For customers, product developers and suppliers, our preparations are meticulous. We don't miss a thing. AAKO isn't an average brand; we're a careful brand. In the world of chemicals, care is paramount.

AAKO. Chemical excellence.

AAKO Sun Care
**We care for
protection.**

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).



A complete package for the formulation of sunscreens.

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 create a waterproof film, emulsifiers or materials to improve the solubility of the UV-filters.

Organic UV-filters

Product	INCI / □ USAN	Product description
AakoSun AVB	Butyl Methoxydibenzoylmethane □ Avobenzone	AakoSun AVB is an oil-soluble UVA filter.
AakoSun BP3	Benzophenone-3 □ Oxybenzone	AakoSun BP3 is an oil soluble UVA & UVB filter and anti-oxidant.
AakoSun BP4	Benzophenone-4 □ Sulisobenzone	AakoSun BP4 is a water soluble UVA and UVB filter and anti-oxidant.
AakoSun BTZ	Diethylhexyl Butamido Triazone □ Iscotrizinol	AakoSun BTZ is an oil soluble UVB filter. Very small concentrations are required to achieve a high SPF value.
AakoSun BEMT	Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine □ Bemotrizinol	AakoSun BEMT is an oil soluble UVA & UVB filter. Very small concentrations are required to achieve high SPF and UVAPF values.
AakoSun EHS	Ethylhexyl Salicylate □ Octisalate	AakoSun EHS is an oily liquid UVB filter.
AakoSun HMS	Homosalate □ Homosalate	AakoSun HMS is an oily liquid UVB filter.
AakoSun OCR	Octocrylene □ Octocrylene	AakoSun OCR is an oily liquid UVB filter. Very suitable to dissolve and stabilize AakoSun AVB.
AakoSun OMC	Ethylhexyl Methoxycinnamate □ Octinoxate	AakoSun OMC is an oily liquid UVB filter. Product is available with or without BHT stabilizer.
AakoSun OTZ	Ethylhexyl Triazone □ Octyl Triazone	AakoSun OTZ is an oil soluble UVB filter. Very small concentrations are required to achieve a high SPF value.
AakoSun PBSA	Phenylbenzimidazole Sulfonic Acid □ Ensulizole	AakoSun PBSA is a water soluble UVB filter.
AakoSun MBBT	Methylene Bis-Benzotriazolyl Tetramethylbutylphenol, Water, Decyl Glucoside, Propylene Glycol, Xanthan Gum □ Bisotrizole	AakoSun MBBT is a water based dispersion of organic pigment giving UVA & UVB protection. Very small concentrations are required to achieve high SPF and UVAPF values.
AakoSun TDSA	Terephthalylidene Dicamphor Sulfonic Acid □ Ecamsule	AakoSun TDSA is a 33% water based solution of an organic acid. AakoSun TDSA is a strong UVA filter.



**A thorough
and meticulous
way of operating.**

Inorganic UV-filters Titanium Dioxide powder types

Product	Surface treatment	Number average particle size	TiO ₂ Content	Property of surface
AakoSun TiO₂ SL	Silica	85 nm	82%	Hydrophobic
AakoSun TiO₂ SLD	Silica Dimethicone	110 nm	80%	Hydrophobic
AakoSun TiO₂ X	Coating upon request	Upon request	~80%	Hydrophobic / Hydrophilic

Inorganic UV-filters Zinc Oxide powder types

Product	Surface treatment	Number average particle size	ZnO Content	Property of surface
AakoSun ZnO	None	40 nm	>99%	Hydrophilic

Auxiliary raw materials

Product	INCI	Function	Product description
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.
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.
Aako Allantoin	Allantoin	Moisturizing Skin Soothing	Aako Allantoin has strong soothing properties and reduces redness. It also has hydrating properties to prevent the skin from drying out.

Product	INCI	Function	Product description
Aako PO	Piroctone Olamine	Preservative Anti-Dandruff	Aako PO is a high purity Piroctone Olamine, known for many years as an excellent anti-dandruff agent. More recently it has been discovered that Aako PO has a much broader protection range against all kind of microbiological species. It is now also used in many preservative formulations at neutral pH, which is important for sun care formulations. Combining Aako PO with Ethylhexylglycerine (Aako EHG) or other preservative boosters gives strong preservation of your cosmetic, deodorant or sun screen formulations.
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.
Aako TEC	Triethyl Citrate	Emollient	Aako 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.
Aako EHG	Ethylhexylglycerin	Preservative booster	Aako EHG is a strong booster of preservatives. For example, the combination with Aako PO yields a strong preservative system at neutral pH., which is important for sun care formulations.
Aako Betaine anhydrous 99%	Betaine	Moisturizing Skin Soothing	Aako Betaine anhydrous 99% has strong water binding capabilities and acts as a moisturizer. Exposure of skin to sun results in a lot of water loss and leaves the skin vulnerable to more damage. Aako Betaine anhydrous 99% can counter-act water loss and therefore Aako Betaine anhydrous 99% is an ideal ingredient to add to pre-sun, sun care and after-sun formulations.
Aako Aloe Vera	Aloe Barbadensis Leaf Juice	Moisturizing Skin Soothing	Aako Aloe Vera can be obtained as 1x, 10x and 200x grades. The products have skin soothing and anti-redness properties against sun burn.

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