What major developments and changes has the sun protection market faced recently?

Uli Osterwalder, BASF Marketing Manager Sun Care: A particularly spectacular example of recent changes in the sun protection market in recent years was the US FDA’s release of the final rule on labelling and testing in 2011. The FDA simplified UV-A testing and labelling enormously, which may have implications throughout the world. For example, companies are now allowed to claim that their sunscreens decrease the risk of skin cancer if the sun protection factor equals or is higher than SPF 15 and if the broad-spectrum measured by the critical wavelength is greater than or equal to 370 nanometers. Most sunscreens in the USA already meet this regulation. The approval of the new UV-A and broad-spectrum UV filters has been delayed by the FDA again.

The methods for assessing sun protection and UV-A protection factors are becoming more and more harmonized, thanks to ISO standards. For labelling, there is a trend within the industry to cap the SPF value at 50+. Only Brazilian legislation allows a highest SPF value of 99. That said, the method and labelling of the degree of UVA protection have not yet been harmonized, but there is a growing trend for replacing the in vivo persistent pigment darkening method with simple in vitro methods, such as the critical wavelength method.

In addition, more and more people are becoming aware that UV radiation is the main cause of premature skin ageing and other skin damage. A growing number of everyday care products with UV protection can be seen on the market, but so far only a few offer sufficient and photostable protection over the whole UV radiation range, which is the standard for official sunscreens.

How is the nano debate affecting the sun protection market?

There is growing awareness of the term “nano”, a term which actually covers many different technologies and materials that should be assessed separately. Several studies have shown, for example, that it is safe to use inorganic particles in sunscreens. In Europe, the SCCS, Scientific Committee on Consumer Safety, is currently carrying out scientific evaluations of the nano materials TiO₂ and ZnO to see if these ingredients are safe, and is expected to publish its results this year. The SCCS’s initial assessment of a new microfine organic particle UV filter (INCI: Tris-Biphenyl Triazine, TBT), was already released in December 2011. It concludes that TBT is safe for its intended use as an active ingredient in sunscreens. However, despite all these positive findings and opinions, companies will be required to declare the nano ingredients used in their products from 2013 onwards, which in turn could impact the sunscreen market and the sales of products containing nano-materials. The industry authorities therefore have the task of educating the public about the reason for declaring nano, while also providing details about nanotechnology and putting emphasis on its performance benefits.

Which trends have you observed in the sun-care market?

There is a general trend towards greater fragmentation, with a growing number of products that are specific to particular consumer groups and for applications that are intended for daily use. This has been triggered by a growing awareness among consumers that UV radiation is the major culprit for...
Skin damage and premature photo-ageing. This in turn has resulted in a rising demand for lighter formulations that combine ease-of-use with skin-caring properties. It is also very likely that an improvement of the sensory appeal of products that contain UV filters would positively impact the compliance of end consumers to use them properly.

When do you think the FDA will approve BASF’s Tinosorb M and Tinosorb S?

As the FDA doesn’t have a specific deadline it is difficult to predict a precise date and they have delayed approval of new UV-A and broad-spectrum UV filters once again. In the meantime, our broad-spectrum UV filters are already used all over the world and we are looking forward to the day when they will also be available in the USA.

In your expert opinion, what would be the ideal sunscreen?

To avoid skin damage, we have to protect ourselves by staying in the shade or wearing suitable clothing. We expect sunscreen products to achieve the very same effect. Whereas sunscreens in the past allowed large amounts of UV-A radiation to pass through, sunscreens today should offer the same amount of protection offered by clothing or shade, and it should also be a uniform protection throughout UVB, UVAII and UVAI from 290 to 400 nanometers to reduce the quantity of sun exposure. The quality of the solar radiation spectrum reaching the skin, which is still essential for us and our bodies, however, should not change. In addition, the sunscreen should provide a light texture for a quick absorption and easy dispersion, as well as a superior sensory profile for a pleasant skin feel.

What will BASF offer in this regard in future?

After the acquisition of Cognis in 2010 the new BASF Personal Care unit is now one of the leading suppliers of raw materials for the personal care industry and has a comprehensive product portfolio for all relevant cosmetic applications. Our new solutions of enhanced sunscreen formulations are based on the emulsifiers and emollients from the former Cognis portfolio which are a good match for BASF’s UV filters. They fulfil the consumer needs and demands mentioned including appealing texture, good absorption and a superior sensory profile.