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# *ULTRAVIOLET FILTERS*

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## **WHAT ARE ULTRAVIOLET FILTERS?**

The sun emits various ultraviolet (UV) rays whose wavelength and intensity vary depending on season and latitude. UVB (short wavelengths) are the most powerful. They induce immediate erythema of variable severity (redness and burning). Repeated exposure to UVB radiation is responsible for various cancers of the skin. UVA (long wavelengths) penetrate deeply into the skin and are responsible for premature skin aging and certain forms of photodermatosis.

Inorganic filters (titanium dioxide and zinc oxide) reflect light while organic filters absorb it. The various UV filters are frequently combined at variable concentrations to ensure the required level of protection (protection factor) against UVA and UVB of sunscreen product ranges and ensure everyday photo-protection of care products. These products are thus endowed with a real benefit for consumer health.

L'Oréal invented the first sunscreen oil in 1935 and remains a leader in the field of photo-protection research through the discovery of new organic filters against UVA and UVB endowed with an irreproachable safety profile.

## **WHAT ARE UV FILTERS SUSPECTED OF?**

Despite the essential role of ultraviolet filters in protection against the sun and everyday photo-protection, their benefit is regularly contested. Certain organic filters are frequently accused of inducing allergies, singled out as endocrine disruptors and suspected of a negative impact on the environment. Inorganic filters are suspected of readily crossing biological barriers (mucous membranes, skin, etc.), being distributed in the body and inducing adverse effects on health. The number and concentration of ultraviolet filters in cosmetic products are very limited and strictly controlled by numerous international regulations. Ultraviolet filters in some protection products are defined as cosmetic ingredients in numerous countries but as medicines in Australia, Canada and the USA. The safety data on ultraviolet filters are very regularly reviewed by the scientific experts of the international health authorities in order to take the most recent studies into account. In certain consumers, cases of allergy may occur. However, those cases are very rare. Current knowledge does not support the involvement of the ultraviolet filters used in cosmetic products in adverse effects for humans related to hormonal system disruption.

## **WHY ARE THE L'ORÉAL PRODUCTS CONTAINING UV FILTERS SAFE?**

We use a very limited number of inorganic and organic ultraviolet filters in our cosmetic products and they have all obtained approval from the international regulatory authorities after rigorous study by their scientific expert committees. The European Scientific Committee on Consumer Safety has recently published a favorable opinion relating to the use of titanium dioxide and zinc oxide in nanometric form in cosmetic products. The ultraviolet filters and their concentrations are rigorously selected to ensure the correct level of product performance, in strict compliance with the international regulations, while ensuring perfect safety for the consumer. The performance of our sunscreen and daily photo-protection products is most frequently ensured by our exclusive proprietary organic filters (Mexoryl SX and XL), which are endowed with an irreproachable safety profile and have not been the subject of any particular safety controversy.

**L'ORÉAL**