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IT'S TIME TO TEST YOUR SUNSCREEN!

SUNSCREEN: MECHANISM OF ACTION

UVC: Are the most damaging rays but are absorbed by the ozone layer. **UVB**: Penetrate right through to the epidermis, cause sunburn and erythema, and accelerate premature ageing.
UVA: Reach deep inside, accelerate the ageing process,.

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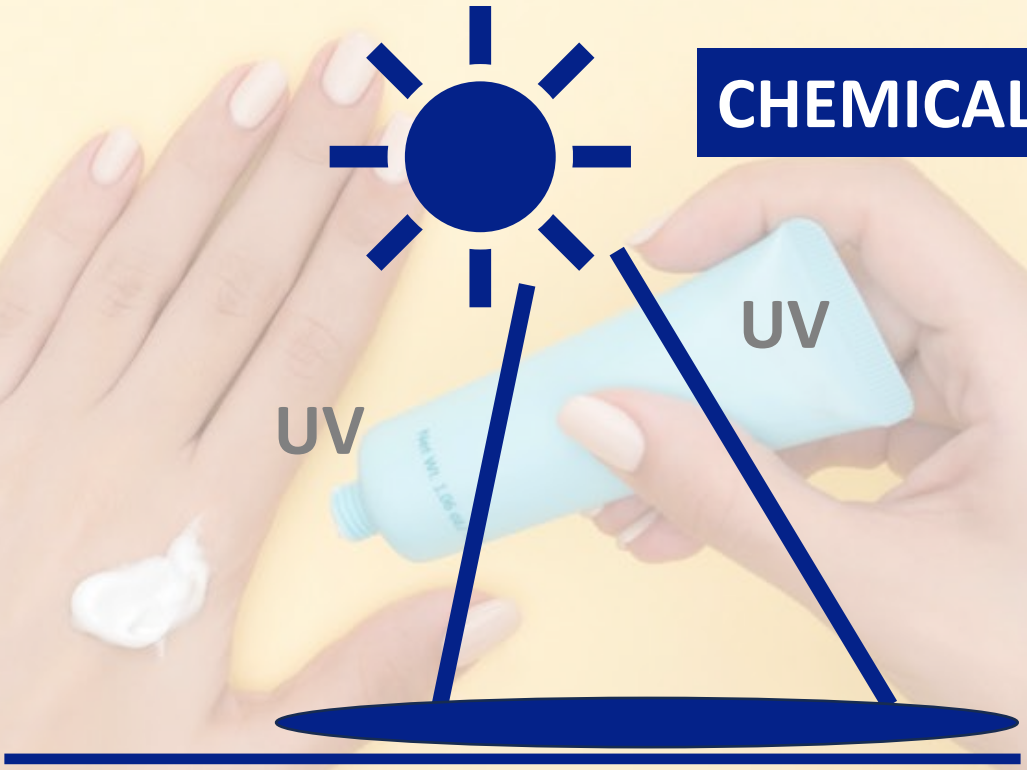
SUNSCREEN: MECHANISM OF ACTION



UV radiation promotes organic filter molecules from the basal electronic state to the excited electronic state. On return to the basal electronic state, energy is dissipated into thermal energy.

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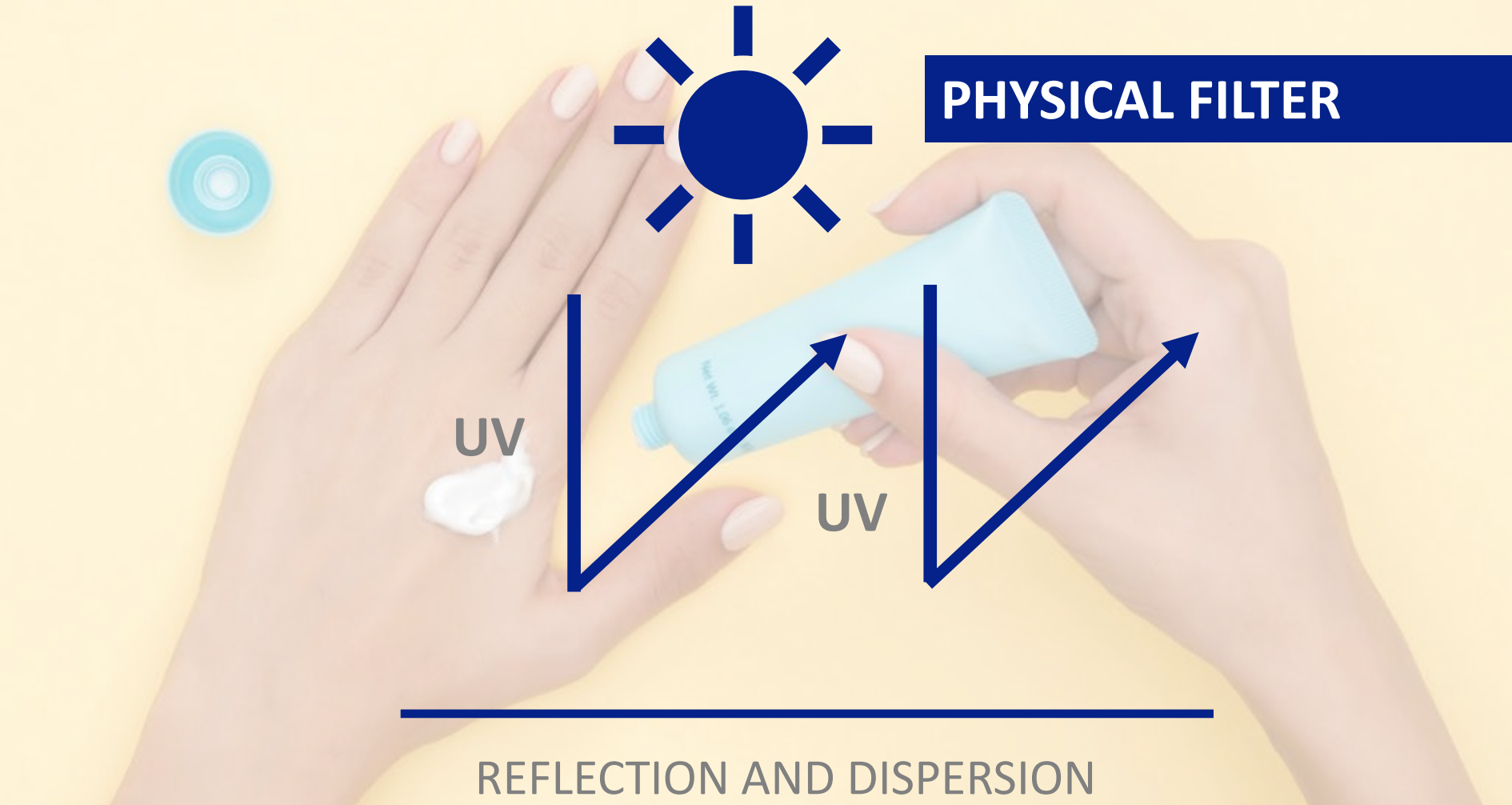
SUNSCREEN: MECHANISM OF ACTION



When UV radiation hits the physical filter particles it is **partially absorbed, reflected and scattered.**

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COSMETICS CAN HELP

Numerous studies have shown that chronic exposure to **solar radiation causes epigenetic changes in DNA** (hyperacetylation of Histone H3, hypomethylation, hypermethylation, etc.) but **COSMETICS CAN HELP!**

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REGULATION DIFFERS ACCORDING TO THE MARKET!

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TESTING STRATEGY

To avoid unnecessary repetition of tests:

- **Identify the markets** where you want to sell the product;
- Then identify **which regulation is the most restrictive;**
- **Use the method** required by the most restrictive regulation;
- **Ask the laboratory to reprocess the data** according to the specific guidelines of each regulation (when possible).

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COSMETICS EUROPE RECOMMENDATION

Two **new alternative methods** to *the in vivo* SPF test will be available and published as ISO standards in early 2025:

- ***in vitro* SPF Double Plate Method;**
- **Hybrid Diffuse Reflectance Spectroscopy.**

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TEST WITH US

Model 601 Multiport® SPF Testing 6 Output Solar Simulator (Solar Light Company, LLC, Glenside, PA, US)

The instrument is capable of simulating the solar spectrum in a standard way. It is used in photobiology studies to expose the skin to controlled doses of UVA+B or UVA alone.

It allows the skin's response when exposed to UV radiation to be studied in studies designed to assess- the sun protection factor (SPF) of sunscreens- the potential irritation from cosmetics after sun exposure (photopatch test)- the reddening or soothing power of cosmetic products (e.g. after-sun creams)- the effect of cosmetic products with a tanning effect

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TEST WITH US

A mini spa pool is used to assess the water resistance of the sun protection factor. After the calculation of the static SPF volunteers are immersed in the mini spa pool and the SPF is calculated after 40- or 80-minutes immersion for water or very water-resistant products; respectively. **The immersion device meets the requirements of the ISO 16217**.

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TEST WITH US

Our international group is at the **forefront** in the field of **testing sunscreen products** and photoprotection in general. We have many years of experience in suncare, ranking **among the top players at European level**.

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THE COMPLIFE R&D TEAM IS IN CONTINUOUS UPDATE ITS KNOWLEDGE AND IS READY TO PROVIDE ADVICE AND SUPPORT WITH THE NEW SOLAR TESTING METHODS OF TOMORROW.

Do you need support?
CONTACT US!

info@complifegroup.com

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