

UV-A Protection and Sunscreens

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Technical Committee TC 6-24 was formed in 1992 due to the importance of the deleterious effects associated with exposure to UV-A radiation and because of a lack of existing guidance/regulations on tests for UV-A protection. The objective was to arrive at an international consensus on such tests. By 1997 the committee had identified one in vivo method worth pursuing, i.e. Persistent Pigment Darkening, and several in vitro methods that had not yet been validated. It was not possible to reach a consensus at that time, however. In the meantime the development of methods to assess UV-A protection continued and is still on-going, especially on in vitro methods. Furthermore, the computer-aided calculation of sunscreen performance - referred to as in silico - became more sophisticated and useful. Rather than trying to find a consensus on sunscreen testing the objective of the reactivated TC 6-24 has now been reduced to giving, in the form of a Technical Report, a comprehensive overview as well as an assessment and ranking of the UV-A methods currently under discussion. This report starts with the general principles of UV protection and an overview of UV-A and broad-spectrum UV filters. Then a description and assessment of in vivo, ex vivo, in vitro and in silico methods is given. This publications is readily available via the website of the Central Bureau of the CIE (www.cie.co.at).

The price of this publication is EUR 56 (Members of the National Committees of the CIE get 50% discount).