

DIN EN 14255-3:2017-02 (E)

Measurement and assessment of personal exposures to incoherent optical radiation - Part 3: UV-Radiation emitted by the sun

Contents		Page
	4
Introduction	5
1	Scope	7
2	Normative references	7
3	Terms and definitions	8
3.1	Symbols, terms and units	8
3.2	Definitions	8
4	Survey of procedures	11
5	Risk assessment using the solar UV-Index IUUV	12
5.1	General	12
5.2	Determination of solar UV-Index IUUV	12
5.3	Risk assessment	13
5.4	Decision on protective measures	14
5.5	Advantages and limitations	14
6	Determination and assessment of the skin exposure factor	14
6.1	General	14
6.2	Skin exposure factor	14
6.2.1	General	14
6.2.2	Calculation of the skin exposure factor	15
6.2.3	Assessment	15
6.3	Advantages and limitations	16
7	Calculation of solar radiation exposures by radiative transfer models	16
7.1	General	16
7.2	Models for the calculation of UV-exposure	16
7.3	Assessment of the result	17
7.4	Necessity of protective measures	17
7.5	Advantages and limitations of the procedures	17
8	Measurement of erythema effective radiant exposure H_{er}	17
8.1	General	17
8.2	Quantities to be measured	18
8.3	Description of the methods	18
8.4	Advantages and limitations	19
9	Measurement of non-melanoma skin cancer radiant exposure H_{nmsc}	19
9.1	General	19
9.2	Procedure	20
9.3	Protective measures	20
9.4	Advantages and limitations	20
10	Measurement and assessment according to EN 14255-1	20
10.1	General	20
10.2	Procedure	21

10.3	Protective measures	21
10.4	Advantages and limitations	21
11	Sun protection measures	22
Annex A	(normative) Relation between skin type and minimal erythema dose	23
Annex B	(informative) Examples of protective measures	24
Annex C	(informative) UV skin and eye risks	25
Annex D	(informative) Methods for the measurement of solar erythema effective radiant exposure H_{er}	26
D.1	General	26
D.2	Methods A to F for the measurement of the erythema effective radiant exposure H_{er}	26
D.2.1	General	26
D.2.2	Method A	27
D.2.3	Method B	27
D.2.4	Method C	28
D.2.5	Method D	28
D.2.6	Method E	29
D.2.7	Method F	29
Bibliography	31