

STOKO® UV27 CREAM



- Sunscreen with protection factor 27**
- **protection against UVA and UVB radiation**
 - **water resistant**

PROPERTIES

STOKO® UV 27 CREAM is a special, water-resistant skin protectant providing protection against intense UV and sun radiation.

STOKO® UV 27 CREAM with protection factor 27 is an easy-to-apply, water-resistant skin protectant, which is particularly suitable for very sensitive areas of skin exposed to high levels of risk.

STOKO® UV 27 CREAM contains the camomile active ingredient Bisabolol as well as vitamin E.

STOKO® UV 27 CREAM is free of preservatives, making it suitable for people with sensitive skin as well as those suffering from any allergies to preservatives.

The wide-ranging protective action is achieved by using a modern UVA and UVB filter combination. These protection filter substances directly absorb the short-wave, ultraviolet light radiation and convert its energy, thereby reducing the immediate harmful effects of UV radiation on the skin.

The UVB part, for instance of the sunlight spectrum, gives rise to sunburn or lightburn, and it is precisely the use of effective light-protection filter combinations that can help prevent these kinds of so-called photodermatoses (skin diseases caused by light).

It is especially recommended that STOKO® UV 27 CREAM be used in the period around midday, as it is then that solar radiation is typically at its most intense due to the position of the sun.

The protective action of STOKO® UV 27 CREAM is not just limited to the UVB range; it also encompasses the UVA range (as defined by the Australian Standard 2604). All the findings available today point to the UVA range being the chief culprit particularly where long-term damage to the skin occurs [1]. UVA radiation is produced at work by such things as degerminating lamps, printing machines and UV emitters for code recognition [2].

WATER AND SWEAT RESISTANCE

The choice of the water-repelling water-in-oil emulsion type as the basis of STOKO® UV 27 CREAM produces a water resistance (as defined by the Australian Standard 2604) such as is required for today's light-protection products.

This water resistance likewise produces a so-called sweat resistance, which is particularly important for welders around their forehead and eyes. Even physical activity producing heavy sweating does not result in the sweat dissolving the protective layer in STOKO® UV 27 CREAM, and water resistance is maintained no matter whether contact is with fresh water or salt water.

AREAS OF APPLICATION

STOKO® UV 27 CREAM is designed mainly for those people who are exposed to heavy UV radiation (e.g. UV component of sunlight) at work. This particularly concerns the following areas:

Agriculture (farming, gardening and forestry), building and construction industry (structural and civil engineering, road building), swimming areas (beaches and open-air pools), and shipping (marine and inland waterways).

APPLICATION

STOKO® UV 27 CREAM should be applied to the clean skin approx. 30 minutes before exposure to UV radiation. It should be applied again following any lengthy contact with water or cleaning products. Applying STOKO® UV 27 CREAM several times does not increase the length of protection.

The UV skin protection preparation STOKO® UV 27 CREAM is also suitable for use on the entire body.

... keeping working skin healthy. **STOKO®**

SKIN PROTECTION SKIN CLEANSING SKIN CARE



DESCRIPTION

White, perfumed, moderately oily, silicone-free cream. Emulsion type: water-in-oil.

Density: see EC safety data sheet

QUALITATIVE COMPOSITION

INCI* NAME:

AQUA (WATER)
OCTYL METHOXYCINNAMATE
OCTOCRYLENE
POLYGLYCERYL-2 DIPOLYHYDROXYSTEARATE
C12-15 ALKYL BENZOATE
BENZOPHENONE-3
PROPYLENE GLYCOL DICAPRYLATE/DICAPRATE
BUTYLENE GLYCOL
CERA MICROCRISTALLINA
MYRISTYL MYRISTATE
ALCOHOL
GLYCINE
ZINC SULFATE
GLYCERYL OLEATE
SILICA DIMETHYL SILYLATE
LACTIC ACID
STEARALKONIUM HECTORITE
TOCOPHERYL ACETATE
PARFUM (FRAGRANCE)
SODIUM LACTATE
PROPYLENE CARBONATE
BISABOLOL
GLYCERIN
TOCOPHEROL
HYDROGENATED PALM GLYCERIDES CITRATE

* The ingredient declarations used are in compliance with the International Nomenclature for Cosmetic Ingredients (INCI, formerly CTFA).

PROOF OF EFFICACY TESTS

The COLIPA* [9] standard has been used to ascertain STOKO® UV 27 CREAM's protection factor of 27. This means that skin that has been treated is protected from damage by light (reddening of the skin/sunburn) 27 times longer than untreated skin.

The protection factor relates to a sunny day (24 hours sunshine) and it cannot be increased by repeatedly applying the product. The periods of exposure therefore have to be seen in conjunction with the individual sensitivity to light (the time until skin reddening occurs) and the protection factor. If the individual sensitivity to light is, for instance, 10 minutes and the protection factor is 27, this would provide protection for a period of 27 x 10 min. = 4.5 hours.

The protective properties of STOKO® UV 27 CREAM also encompass the UVA range, and the action of UVA radiation on the skin can be reduced to well under 10%. Applying STOKO® UV 27 CREAM was found to result in almost total reduction of the UVA transmission as defined by the Australian Standard 2604.

* European association of the cosmetics industry

SKIN COMPATIBILITY TESTS

STOKO® UV 27 CREAM has proved to have very good skin compatibility properties in human-experimental test methods and in practical use (certificate by the Department of

Dermatology, Clinic Krefeld, Germany), and it was, indeed, in a scarified Duhring Chamber Test modelled on Frosch and Kligman [3] as well as Kresken et al. [4] that very good skin compatibility was able to be demonstrated for STOKO® UV 27 CREAM (see table).

Table: Skin compatibility of STOKO® UV 27 CREAM in the scarified Duhring Chamber Test ¹

Product	Irritation ²	Application time ³
	\bar{x}	\bar{h} (hrs.)
STOKO® UV 27 CREAM	1.3	61.4
Vaseline	1.0	63.4

¹ n = 25

Test period: March 1998

Test concentration: undiluted

² Averages of the cumulative irritation parameters skin redness, scaling and fissuring, each evaluated visually based on a rating scale of 0 (no symptoms) to 4 (most severe symptoms).

Maximum value: \bar{X} = 12 (most severe symptoms).

³ Maximum application time: \bar{h} = 72 hrs. (24 hrs. each time, on three consecutive days).

Source: certificate by the Department of Dermatology, Clinic Krefeld, Germany, dated May 1999.

STATUTORY REGULATIONS

STOKO® UV 27 CREAM is governed by the Ordinance Regulating Cosmetics, the Cosmetic Directives of the EU, and the German Food and Consumer Goods Act, and is not subject to the Chemicals Act or the Ordinance Regulating Hazardous Substances.

An EU safety data sheet is available on STOKO® UV 27 CREAM.

All products in the STOKO® programme meet the bacterial purity standards as they apply to medicines for external use (as per DAB = German Pharmacopoeia):

< 100 reproducible germs/g of product

Verification tests in this respect are a regular feature of Stockhausen quality assurance procedures.

The application of skin protection products does not exempt from the use of other legal recommended personal protection equipment.

FIRST AID

In the event of accidental eye contact with the product, rinse out using water.

STORAGE INFORMATION

STOKO® UV 27 CREAM can be stored in a closed container at room temperature for at least 30 months.

ADDITIONAL INFORMATION

In addition to special skin protection using STOKO® UV 27 CREAM, frequent exposure of the skin to UV radiation also requires gentle and mild skin cleaning and regenerative skin

conditioning [5]. Customer Service at Stockhausen GmbH & Co. KG, Krefeld, Germany will gladly assist you in selecting the right product from the STOKO® Programme. Questions of a more detailed technical nature may be directed to the Scientific Information Department, Stockhausen GmbH & Co. KG, Krefeld, Germany.

Exposure to adverse climatic conditions (cold, low humidity), severe on-the-job- stressing, or frequent washing while working may cause the skin to become dry, rough and cracked, particularly in the case of sensitive skin [6-8]. This skin condition may result in the horny layer breaking up and thus to an impairment of the natural protective function. In order to prevent or to regenerate such damage, the skin should be regularly treated after work using a suitable skin care product such as STOKOLAN®, STOKO® GLYCERIN, STOKO® LOTION, ESTOLAN® or STOKO® LOTION PLUS [6-8]. This serves to support the skin in its natural regeneration by simultaneously providing the skin with oils, moisture and water-retaining nutrients. It is recommended that those who already have severely roughened or naturally very dry and sensitive skin should use the skin care cream STOKO® Vitan.

In order to help prevent occupational skin diseases the skin should be cleaned as gently as possible. Only those skin cleaning products should be used that exhibit superior skin compatibility and that are specifically matched to the type of contamination involved.

PACKAGING SIZES

100 ml tube

The above information is based on our current level of experience and understanding. We are making it available to you in an advisory capacity, without obligation. We ask that you adapt all information regarding application of our products to your local conditions, matching them to the particular materials in local use.

® Registered trademark

LITERATURE

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- [9] COLIPA (Verband der europäischen Kosmetikindustrie): Die Methode zur Bestimmung des Lichtschutzfaktors. Deutsche Übersetzung: IKW, Frankfurt (Juli 1995).

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CERTIFICATE

Skin compatibility of Stoko® UV 27

Tests were conducted under my instructions in the Research and Development Division Skin Protection of the Stockhausen GmbH & Co. KG.


Instead of the usual Epicutan test method, we made use of the Chamber-Scarification-Test [1-4], which bears a substantially stronger test base (Application time: maximum 72 hours; 1st - 3rd day each 24 hours). In accordance with this test method, the test product was directly compared with the standard petrolatum ph. on 25 human test subjects, with the following results (test period: March 1998):

	test product	petrolatum ph.
a) Tolerated application mean time:	$\bar{h} = 61,4$ hours	$\bar{h} = 63,4$ hours
b) Accumulated irritation mean value:	$\bar{x} = 1,3$	$\bar{x} = 1,0$

Based on the above results Stoko® UV 27 is to be classified as a „skin protection product“ with a very good skin compatibility.

Therefore, in practice, no skin irritation is to be expected. This test does not, however, permit any conclusion regarding the possible occurrence of skin irritation due to allergy, as prolonged testing would be necessary.

May 21, 1999
Date


Prof. Dr. S. W. Wassilew

Literature:

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