- with waxes and special filmforming substances
- absorbed quickly
- without mineral oil
- without parebenes
- silicone-free
- perfumed













DUALIN®/
DUALIN® unp.

Skin protection cream with dualistic effect



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- absorbed quickly
- without mineral oil
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- silicone-free
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### PRODUCT PROPERTIES / APPLICATION AREA:

DUALIN® protects the skin against water-insoluble substances as well as against water-soluble substances. The cream's dualistic effect is the reason why DUALIN® can be used at workplaces with varying working materials. In combination with sunflower germ oil (high oleic variant) and shea butter, the skin-friendly main active agent stearin forms a water-repellent film on the skin. Wax pigments strengthen this protective layer and a special gel film-forming agent supports the effect against water-insoluble working materials. The skin's natural functions are not affected by the protective film.

DUALIN® is a slightly greasy and quickly absorbed cream. Due to its high dermatological compatibility, DUALIN® is also suitable for facial application.

#### **APPLICATION:**

Before work, apply DUALIN® evenly on hands, which previously have been cleaned thoroughly and dried carefully. The amount of cream to use depends on the application surface, e.g. a hazelnut-sized amount of cream for the hands. Apply generously as small amounts only offer low protection. Rub in the cream evenly, paying particular attention to vulnerable areas such as between the fingers and around the nails. After a short drying period, the protective film is active.

In order to maintain the skin protection, the application of DUALIN<sup>®</sup> should be repeated, especially after washing or exposure to mechanical stress. Principally, DUALIN<sup>®</sup> should be reapplied every two hours.

Please have a look at the video "Applying Creams": https://www.youtube.com/watch?v=TJ-ynm-EPlo&t=6s



Please note: The application of skin protection agents does not exonerate from the application duty of other prescribed precautionary measures. Skin protection agents do not provide complete protection against harmful workplace substances.

## PRODUCT DESCRIPTION:

White, slightly greasy cream which is based on an oil-in-water emulsion, pH-neutral, without mineral oil, without parabenes, perfumed

### **PRODUCT EVALUATION SHEET:**

A product evaluation sheet can be downloaded from <a href="https://www.physioderm.com/en/infocenter/test-sheets/">https://www.physioderm.com/en/infocenter/test-sheets/</a> or is available on request.

#### **DERMATOLOGICAL COMPATIBILITY:**

DUALIN®'s dermatological compatibility has been carefully tested and proven. A printed certificate is available.

#### **COATING COMPATIBILITY:**

The Fraunhofer Institute for Manufacturing Engineering and Automation confirms the general coating compatibility of DUALIN<sup>®</sup>.



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#### Suitable DISPENSING SYSTEMS:



#### **ORDERING DATA:**

100 ml Tube: BSW No. 14023001 12 x 100 ml Tube = 1 PU<sup>1</sup>)

1000 ml Collapsible Bottle: BSW No. 14023002  $6 \times 1000$  ml Bottle = 1 PU $^{1}$ )

1000 ml Neptune Bottle: BSW No. 14023003 6 x 1000 ml Bottle = 1 PU<sup>1</sup>)

unp., 100 ml Tube: BSW No. 14024001 12 x 100 ml Tube = 1 PU<sup>1</sup>)

unp., 1000 ml Collapsible Bottle: BSW No. 14024002 6 x 1000 ml Bottle = 1 PU<sup>1</sup>)

#### Dispenser VARIOMAT M

(made of robust high-quality steel): BSW No. 12938004 for 1000 ml Collapsible Bottle

### **Dispenser NEPTUNE STANDARD**

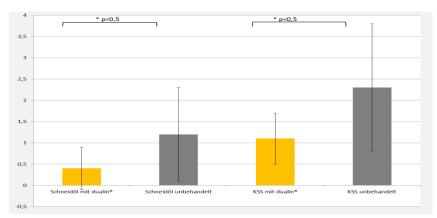
(made of plastic): BSW No. 13827001 for 1000 ml Neptune Bottle

1) PU = packaging unit

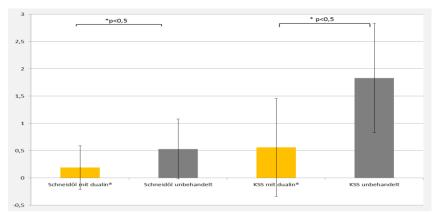
### **EFFICIENCY TEST:**

DUALIN®'s efficiency has been proven by a repetitive irritation model. In this process, 20 test persons applied the skin protection cream to their forearms (amount: approx 2 mg/cm²) twice a day before contact to the noxious agents, during a period of five days. At the end of this period, the degree of redness (chromametry) and the trans-epidermal water loss (TEWL) were compared to an untreated skin surface. For the model, a mineral cutting oil 21 (Metall BG, Mainz) and the water-soluble cooling lubricant 23 (Metall BG, Mainz) had been used as noxious agent.

Result: The tested product DUALIN® Skin Protection Cream has a good effeciency against the tested noxious agents cutting oil and cooling lubricant (water-insoluble and water soluble models of noxious agents).



Picture 1: Measuring of the trans-epidermal water loss as a marker for the damage to the epidermal barrier (n=20). The trans-epidermal water loss of the skin was significantly reduced by application of DUALIN® in relation to the noxious agents cutting oil and cooling lubricant.



Picture 2: Measuring of the degree of redness (n=20). The redness of the skin was significantly reduced by application of Dualin® in relation to the noxious agents cutting oil and cooling lubricant.



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#### **PRODUCT QUALITY:**

The product is manufactured according to GMP (GOOD MANUFACTURING PRACTICE) requirements. The bacteria count is microbiologically tested on a regular basis and is under 100 bacteria per gram.

#### FIRST AID:

If DUALIN® accidentally gets into your eyes, rinse immediately with plenty of lukewarm water. If a burning sensation still persists, consult an eye doctor as measure of precaution.

#### STORAGE INSTRUCTIONS:

DUALIN<sup>®</sup> will keep for at least 30 months (from date of manufacture) if stored unopened at room temperature in the original packaging. The Period After Opening (PAO) is indicated on each tube / bottle.

#### STATUTORY REGULATIONS:

DUALIN® is subject to the EC Cosmetics Directive, but not to the German Chemicals Act or the Hazardous Substances Order. Moreover, skin protection products are received as part of the Personal Protective Equipment (PPE).

#### **ENVIRONMENT:**

All tubes and bottles are made of polyethylene and after being completely emptied, they can be disposed of with other polyethylene waste. Packaging is labeled accordingly.

#### **COMPOSITION ACCORDING TO INCI\*:**

AQUA, C12-15 ALKYL BENZOATE, ISOPROPYL PALMITATE, ZINC STEARATE, MYRISTYL MYRISTATE, CETEARYL ALCOHOL, CETEARYL GLUCOSIDE, C12-18 ACID TRIGLYCERIDE, SHOREA STENOPTERA SEED BUTTER, METHYL HYDROXYETHYLCELLULOSE, CERA ALBA, PHENOXYETHANOL, CHONDRUS CRISPUS POWDER, PALMITIC ACID, BUTYROSPERMUM PARKII BUTTER, STEARIC ACID, HELIANTHUS ANNUUS HYBRID OIL, ETHYLHEXYLGLYCERIN, POTASSIUM HYDROXIDE, TOCOPHERYL ACETATE, BENZYL ALCOHOL, (PARFUM).

\* (International Nomenclature Cosmetic Ingredients)

Our information and recommendations correspond to our current state of experience. They are not binding and do neither imply any warranty nor do they establish a contractual relationship. We reserve the right of modifications in line with technological progress and further development of our products. We request our customers to conduct their own tests on our products for fitness for purpose.

