

# **EPI-SHIELD BARRIER CREAM**

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# ***EPI-SHIELD BARRIER CREAM***

## **INTRODUCTION**

EPI-SHIELD barrier cream is a white, unperfumed, light-textured cream for external use only. It has both protective (barrier) and emollient functions and thus has a wide range of indications for use. The ingredients of the product have all been available in topical Preparations, both branded and generic, and the safety profile of each is well established.

## **INDICATIONS FOR USE**

The recommended use for EPI-SHIELD is primarily as a barrier cream for normal skin in a work environment where the skin is exposed to dry or irritating conditions. Such conditions include those experienced by hospital staff - medical , nursing and paramedical - who are required to wash their hands frequently. Similarly , it may be used as a barrier cream in hairdressers, especially during training when repeated hair shampooing is carried out. In an industrial setting it may be used as a barrier where there is exposure to chemical irritants such as oil , detergents and solvents, it may also be used by cement workers in the construction industry. EPI-SHIELD may be used as a barrier layer in cold , frosty and windy weather.

EPI-SHIELD may also be used as an adjunct to prescribed treatments for dry, scaly skin conditions or dermatoses including eczema / dermatitis, xerosis, ichthyosis and psoriasis as it also has emollient properties.

# PHARMACOLOGICAL ASPECTS

The constituents of EPI-SHIELD include

Dimethicone, Propylene glycol, Triethanolamine stearate, Glyceryl stearate

Acetylated naturally occurring alcohols including cetyl acetate and oyl acetate,

Triclosan and Dichlobenzyl alcohol.

***Dimethicone*** is a silicone and, as such, is water repellent. It is used in topical barrier preparations for protecting the skin against water-soluble irritants. Creams, lotions and ointments containing dimethicone are employed for the prevention of bedsores and nappy rash and to protect against trauma due to incontinence or stoma discharge.

***Propylene Glycol*** is a clear, odourless, viscous, hygroscopic liquid. It is widely used in pharmaceutical manufacturing as a solvent and vehicle. Propylene glycol has humectant properties and is used similarly to glycerol in topical moisturising preparations.

***Triethanolamine Stearate*** - Triethanolamine is a clear, colourless, odourless, viscous, hygroscopic liquid. When combined with the fatty acid, *stearic acid*, it is used as an emulsifier.

***Glyceryl stearate*** is a nonionic surfactant with emollient properties and is used as an emulsifying agent in topical preparations.

***Acetylated naturally occurring alcohols including cetyl acetate and oyl acetate.*** These naturally occurring fatty alcohols are practically insoluble in water and are used as emollients in topical preparations and also for their emulsifying properties.

***Triclosan*** is a chlorinated bisphenol antiseptic, effective against both gram-positive and most Gram-negative bacteria but with variable to poor activity against *Pseudomonas* spp. It is also active against fungi. It is used in soaps and creams for disinfection of hands and other areas of the skin.

***Dichlorobenzly alcohol*** is an antiseptic used chiefly as an ingredient of products to treat minor Gram-positive infections.

## CLINICAL SAFETY

All the ingredients of EPI-SHIELD are the subject of pharmacopoeial monographs which control the quality of each material. All substances have been available in topical preparations, both branded and generic, and the safety profile of each is well established.

## **PILOT STUDY IN HAND ECZEMA / DERMATITIS**

To date, there are no clinical trials published on the use of EPI-SHIELD as it is classified as a cosmetic product. However, the results are available of an open, pilot study of 16 Consecutive patients with hand eczema / dermatitis, attending a dermatology clinic in Dublin. They were under the care of one consultant dermatologist. The occupation of the patient and the diagnosis were established at the outset and a global assessment of severity was made. Patients were advised to continue to use their prescribed treatment and to use EPI-SHIELD as an emollient / lubricant and barrier cream as often as they deemed necessary. At four weeks patients were asked a number of simple questions to establish their opinion of the benefits or otherwise of the preparation.

## RESULTS

Sixteen patients were included in the study period, six male and ten females aged between 18 to 69 years, mean age 40 years. The duration of the rash was three weeks to 30 years with a medium of one year. The severity of the rash was recorded as mild in 4 (27%), moderate in 7 (47%) and severe in 4 (27%).

The overall subjective patient assessment of the **protective effect** of EPI-SHIELD to their treatment regimen was **fair to excellent in 81%** - excellent 13%, good 56% , fair 13% and none in 19%. The preparation was found to be **cosmetically acceptable and soothing in 94%**, while only 6% found it irritating. **Forty three percent were able to use less of their prescription topical preparations while using EPI-SHIELD.**

Whilst this study was small on numbers, and was both open and pilot in nature, nevertheless it provides encouraging results for the use of EPI-SHIELD in inflammatory dermatoses as an adjunct to prescribed treatment.

### USE TEST AS A BARRIER CREAM ON NORMAL SKIN

EPI-SHIELD has to date had several thousand applications in nurses, medical and paramedical staff in a major teaching hospital. it has been used on the wards and in the operating theatre. Preliminary results of this “use” study are very encouraging.