



The User-Friendly Dual-Phase Peroxide System

Conception

The user-friendly dual-phase care system is intended for use to disinfect, clean and store contact lenses.

The contact lenses are disinfected and cleaned by the peroxide solution. The microbial catalase in uncoated tablet form neutralises the peroxide, producing rapid, safe conditioning with optimal wetting of the CL surfaces. The relatively brief processing time allows re-use of the treated contact lenses after just 2 hrs.

The "tab in one" peroxide system is recommended for the care of all standard types of contact lenses, especially soft, hydrophilic contact lenses.

As a dual-phase peroxide system, "tab in one" offers wearers easy, efficient contact lens care. After completing the disinfection process, the care system's goal of spontaneously good, sustainable tolerance is pursued with the preservative-free, tear film-like composition of the remaining solution.

Eye and contact lens

In addition to the initial consultation with the specialist, proper lens care is of great importance to ensure optimal tolerance of the contact lenses over an extended period of time.

The individual elements of the contact lens care must be coordinated with the lens material and geometry as well as with the particular circumstances of the user. Biocompatibility and compliance are decisive factors for the successful wearing of contact lenses. Thus care must be easy but also safe.

What are the components of the "tab in one" peroxide system and how do they work?

The "tab in one" peroxide care system consists of 3 components:

- the 3% "tab in one" hydrogen peroxide solution
- uncoated neutralisation tablets with a green bio-indicator
- a specially designed contact lens container with a ventilation valve

The neutralisation tablets are not coated to allow slow, continuous release of the catalase. The enzyme is gradually dispensed as the tablet dissolves and thus neutralises the hydrogen peroxide. This process proceeds at an even rate within a defined timeframe to achieve optimal effectiveness. Within 2 hours the 3% hydrogen peroxide portion of the "tab in one" solution has been broken down completely into a saline solution isotonic to the tear film.

With the "tab in one" solution as "activated" hydrogen peroxide and the neutralisation tablet, which commences releasing a specific quantity of catalase at once with use, the disinfection action is better than with stabilised, pure hydrogen peroxide. This mixture of the "tab in one" solution and the catalase of the tablet contains labile oxygen atoms that oxidise the organic deposits thoroughly and remove them.

During the neutralisation interval the contact lenses are disinfected and freed from contaminating microorganisms. Proteins, lipids and mucins that have been deposited on the lens during the course of the day are removed gently through the oxidation and fizzing action with a long-lasting effect. By using a microbial catalase in tablet form, it is very resistant to pH-value fluctuations, humidity and heat. Smaller quantities of this highly purified enzyme are needed for effective, safe neutralisation to occur. As a result, the organic substance content and thus any possible uptake into the lens matrix are also substantially reduced, which minimises any possible intolerance while wearing the lenses.

The greenish colour of the solution, derived from the bio-indicator, signals completion of the continuous neutralisation. Now the lenses are ready to be inserted directly from the solution. This solution contains no preservatives and thus is well suited for sensitive eyes.

The results of the investigations

During the trials, the germicidal action of the 3% hydrogen peroxide together with the catalase tablet was shown to be particularly effective when compared to pure 3% hydrogen peroxide.

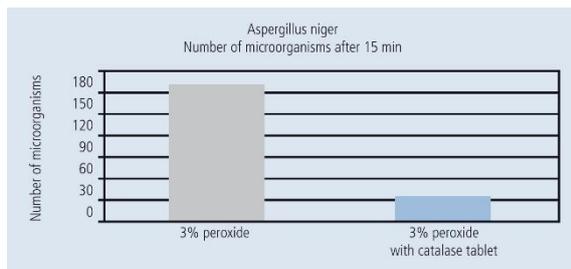


Fig. 1: Number of microorganisms of aspergillus niger per ml after 15 min exposure. Comparison of the 3% hydrogen peroxide alone with the catalase tablet and a 3% hydrogen peroxide combination.

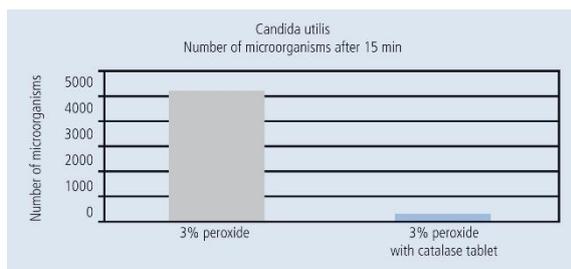


Fig. 2: Number of microorganisms of candida utilis after 15 min exposure. Comparison of the 3% hydrogen peroxide alone with the catalase tablet and a 3% hydrogen peroxide combination.

Lens care

The CONTOPHARMA “tab in one” peroxide care system for contact lens care provides the “tab in one” solution in combination with the “tab in one” tablet in a matching contact lens container with an elastic ventilation valve.

An enhanced cleaning action is achieved by combining the disinfection action of the hydrogen peroxide with the optimised action of a neutralisation tablet. After the hydrogen peroxide has been broken down completely by the neutralisation tablet, the solution reaches a pH-neutral state that is isotonic to the tear film and free from any preservative substances.

After a 2-hour processing time the contact lenses are once again ready for reuse.

Further information

The CONTOPHARMA Comfort solutions as well as the “Ocusan” solution are recommended for re-wetting:

- The balancing effects of the active ingredients of the “drop&see” solution support the cell functions of the cornea when there is reduced tear production. The “lens&lid” solution with its optimised composition protects the CL surfaces from contaminants while wearing. Both solutions have a high hyaluronate content.
- The “Ocusan” solution is offered in unit-dose (monodose) packs. Together with the high hyaluronate content it forms a preservative-free, viscoelastic protective film.

The CONTOPHARMA “saline solution” is recommended if the contact lenses need to be rinsed off again during handling.

The use of a non-emollient, alkali-free, antibacterial soap such as “Contabelle Hand Soap”, which cleanses the hands without leaving residues, is recommended for handling the lenses.

After the hand washing and handling of the contact lenses, application of “Contabelle Handcare” is recommended to re-moisturise the skin.

Summary

The new “tab in one” peroxide system is offered as an addition to the existing CONTOPHARMA product range for the care of contact lenses. The “tab in one” care system

- acts on a hydrogen peroxide base and allows dual-phase disinfection, neutralisation, cleaning and storing of the lenses
- eliminates 5 - 24 times more microorganisms than 3% hydrogen peroxide alone within the same time period
- inactivates microorganisms that have been deposited during the day due to the strength of the oxidation and the bubble formation of the oxygen
- is absolutely safe - the tablets are manufactured with a microbial catalase. They are environmentally stable, contain very few impurities and thus carry few risks with regard to allergies or intolerance

The system is an easy, safe system that meets the special needs and requirements of the specialist for compliance and of the user for convenient lens care.