INSTRUCTIONS FOR USE

Cleaning and disinfection

Tonometer measuring prisms, contact lenses and Desinset

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Purpose of use
This document describes the correct cleaning and disinfection procedures for the tonometer measuring prisms, contact lenses and Desinset from HAAG-STREIT. Correct cleaning and disinfection not only prevents the transmission of diseases to patients and users, but also mechanical damage. To protect both the materials and patients alike, this procedure has been validated by an accredited testing laboratory. The validation report is available from HAAG-STREIT on request.

WARNING!
Read the instruction manual carefully before commissioning this product. It contains important information regarding the safety of the user and patient.

DANGER!
Failure to comply with these instructions may result in material damage or pose a danger to patients or users.

WARNING!
These warnings must absolutely be complied with to guarantee safe operation of the product and to avoid any danger to users and to patients.

NOTE!
Important information: please read carefully.

1 Safety

1.1 Ambient conditions

NOTE!
Important information: please read carefully.
1.2 Important general notes

**WARNING!**
The products listed in this instruction manual are not sterilized when shipped. They must be cleaned and disinfected prior to their first use.

**NOTE!**
- All the warnings and notes in the instruction manuals of the measuring prisms, contact lenses and Desinset must be followed without exception.
- Examinations should only be performed with undamaged, cleaned and disinfected measuring prisms and contact lenses.
- The measuring prisms and contact lenses used must not be damaged as they might otherwise damage the patient's cornea.
- Improper preparation can result in the transmission of diseases to the patient and user as well as damage to the measuring prisms and contact lenses.
- Residue from cleaning agents and disinfectants can irritate and burn the patient's eye.
- As a rule, the measuring prisms and contact lenses may be prepared together but should not be prepared with any other products.

1.3 Operation, environment

**NOTES!**
- The operation and preparation must only be performed by qualified, trained personnel, whose training corresponds to the task of the operator.
- Appropriate professional assessment and caution are necessary.
- The safety instructions in the instruction manuals for the measuring prisms, contact lenses and Desinset also apply.

1.4 Warranty and product liability

* The products must be handled as described in the "Safety" section.
* Improper handling can damage the product. This voids all guarantee claims.
* Continuing to use a product damaged by incorrect handling can lead to personal injury. In this case, the manufacturer accepts no liability.

1.5 Validated cleaning and disinfection agents

The following cleaning and disinfection agents were used in several validations. The validation reports can be obtained from HAAG-STREIT.

**WARNING!**
Check in the "List of Disinfectants" for material compatibility of the different agents with the HAAG-STREIT products. The list as well as the validation reports can be found at www.haag-streit.com

**Disinfection agents:**

<table>
<thead>
<tr>
<th>Product</th>
<th>Concentration</th>
<th>Residence time</th>
<th>Rinse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen Peroxide H₂O₂</td>
<td>3%</td>
<td>10 minutes</td>
<td>Rinse with cold running water for 5 minutes</td>
</tr>
<tr>
<td>Sodium Hypochlorite NaOCl</td>
<td>10%</td>
<td>10 minutes</td>
<td>Rinse with cold running water for 10 minutes</td>
</tr>
<tr>
<td>Sekusept forte S</td>
<td>3%</td>
<td>15 minutes</td>
<td>Rinse with cold running water for 5 minutes</td>
</tr>
<tr>
<td>Tristel DUO</td>
<td>100%</td>
<td>30 seconds</td>
<td>Remove foam and dry with Tristel Wipe for 15 seconds</td>
</tr>
</tbody>
</table>

2 Cleaning and disinfection of measuring prisms and contact lenses

**IMPORTANT NOTE FOR THE USA ONLY!**
Use only Hydrogen Peroxide at a 3% aqueous solution or Sodium Hypochlorite (Household Bleach) at a 10% aqueous solution. These two solutions have been validated with mild soap (e.g. Palmolive 0.08%) as the cleaning agent. The next topics don't apply, proceed with point 9.

**WARNING!**
The disinfectant used must satisfy two criteria:

- For material compatibility reasons, only agents approved by HAAG-STREIT may be used. The current material compatibility list can be found on the HAAG-STREIT homepage and is included with the tonometer and measuring prism. Should the operator decide to employ other disinfectants or procedures of his own accord, it must be ensured that the disinfection is not performed with agents containing alcohol or acetone and is never performed with UV radiation, steam or ethylene oxide.
In terms of efficacy, all disinfectants that are approved for instrument disinfection and that have been tested for their efficacy against all nosocomially relevant infectious agents, can generally be used as long as they also satisfy the material compatibility requirements outlined above. The user is responsible for selecting the correct disinfectant and employing the correct concentration.

2.1 Manual cleaning steps

NOTE!

• For simple and safe disinfection, we recommend the use of the Desinset from HAAG-STREIT (see chapter 3).
• The following cleaning and disinfection instructions refer to use of Haag-Streit Desinset. The use of other disinfectants will be at the user’s own risk.

1. Rinse the measuring prisms or the contact lens as long as necessary under running water (guide time 60 seconds). To this end, measuring prisms must be removed from the holder (a).
2. Clean the measuring prisms or contact lens with a pH-neutral cleansing agent until no more soiling is visible.
3. The cleaning agent must then be rinsed off well under running, cold drinking water! (60 seconds.
4. Dry measuring prisms or contact lenses with a new, lint-free disposable cloth.
5. Perform visual checks for cleanliness and perfect working condition.
6. Place the cleaned measuring prisms or contact lenses in the Desinset plastic tray (b).

2.2 Disinfection steps

7. Take the measuring prisms or contact lenses to be disinfected out of the plastic tray and place them on a clean and disinfected Desinset plastic insert (c). The tonometer measuring prism is placed on the bottom level. Contact lenses are distributed evenly among both levels.

8. Add at least as much disinfecting solution in a clean and disinfected Desinset measuring beaker as is necessary for the instruments to be fully immersed (d). 600 ml for tonometer measuring prisms, 900 ml for contact glasses.

NOTE!

• We recommend the use of a disinfection agent used in one of our validations (see chapter 1.5).
• The operator accepts all liability for the use of other disinfection agents.
• The maximum, material-compatible exposure time for the disinfectant is 60 minutes.

9. Immerse the Desinset plastic insert with the measuring prisms or contact lenses (c) in the disinfectant solution in the Desinset measuring beaker (d).

WARNING!

• All measuring prisms and contact lenses must be completely immersed in the disinfectant solution!
• As the measuring prisms tend to float in the solution, they must always be placed in the lower tray of the Desinset insert.

IMPORTANT NOTE FOR THE USA ONLY!

• Allow the disinfectant solution to work with an exposure time of 10 minutes. (e). The maximum, material-compatible exposure time for the disinfectant is 60 minutes. **Point 11 doesn’t apply.**

10. Allow the disinfectant sufficient time to work as specified in the disinfectant manufacturer’s instructions (e).
11. Once the exposure time has expired, remove the plastic insert with the measuring prisms and/or contact lenses, allow them to drip dry (f) and then place them in the other clean and disinfected measuring beaker.

NOTE!

The disinfectant must be replaced as follows:
• When visibly soiled
• Once a day or as specified by the manufacturer.
2.3 Rinsing and storage

12. Place the clean and disinfected funnel on the plastic insert (g).
13. Rinse the measuring beaker and its contents with running, cold drinking water for at least 10 and at most 15 minutes (h).
14. Remove the plastic insert with the measuring prisms and/or contact lenses (i) and dry all items individually with a clean and sterile, soft disposable cloth.
15. Store the cleaned and disinfected measuring prisms or contact lenses in the sealed and disinfected Desinset lens container (j) until their next use.

**WARNING!**
Only use clean, residue-free and undamaged measuring prisms and contact lenses! Prior to every use, the contact surface of the measuring prisms or contact lenses must be inspected for contaminants or damage (scratches, cracks or sharp edges). This must be performed with a slit lamp microscope at 10x to 16x magnification!
3 Preparing the Desinset

**WARNING!**
- The Desinset is not sterilized when shipped and must be cleaned and disinfected prior to its first use.
- Dry the Desinset after every use with a clean, sterile, and soft cloth and store in a clean location.

3.1 Cleaning steps

**Manual cleaning of the Desinset:**
- Remove the protective film (cover of lens container, holder for contact lenses)
- Thoroughly clean all parts with a commercially-available detergent
- Rinse with plentiful drinking water (guide time 60 seconds)

3.2 Disinfection steps

- For disinfection of the Desinset, we recommend a disinfectant that is approved for instrument disinfection. The use of a different disinfectant is the responsibility of the user.
- All containers are immersed in this agent
- Once the exposure time has elapsed, rinse all parts with drinking water in accordance with manufacturer’s specifications (guide time 60 seconds)
- Dry the components of the Desinset with a sterile and soft disposable cloth

3.3 Accessories

The Desinset V 7220127 from HAAG-STREIT comprises:
- Two measuring beakers, two-part plastic insert, funnel, plastic tray with transparent V plastic insert and sealable lens tray with transparent V plastic insert.

The Desinset AT 7220128 from HAAG-STREIT comprises:
- As Desinset V, with transparent AT plastic inserts.

The Desinset AT 7220131 from HAAG-STREIT comprises:
- As Desinset V, with transparent CG plastic inserts.
Should you have any further questions, please contact your HAAG-STREIT dealer at:

http://www.haag-streit.com/contact/contact-your-distributor.html