

WHAT ARE THE RECOMMENDED CLEANING PROCEDURES?

WASHING WITH HAEMO-SOL

Pre-soaking – Keep a large basin, pail or sink filled with Haemo-Sol solution for immediate immersion of soiled equipment. Soiled glassware and instruments should not be allowed to stand after use. Dried-on soils are much more difficult to remove than the same soil when it is fresh, and the dried-on contaminants etch valuable equipment. Glassware soaked in this way usually needs only to be rinsed to be completely clean.

Glassware – Glassware that has not been pre-soaked or that is very heavily soiled should be completely immersed in warm (50-60°C) Haemo-Sol solution for ten minutes or longer, depending on the amount and kind of soil present. No brushing or scrubbing is necessary, merely rinse thoroughly. If contaminants found in the tap water are undesirable, a final distilled water rinse should follow.

Fine Optical Glassware – Fine optical glassware absorption cells, electrophoresis cells, and other fine glass articles may be washed in the same wash as ordinary glassware. Haemo-Sol cleans rapidly without any danger of etching, then rinses away completely, leaving behind a perfectly transparent glass surface. To avoid accidentally scratching, use a separate Haemo-Sol bath for valuable and delicate equipment of this sort.

Pipettes – Maintain a jar full of Haemo-Sol solution and immerse soiled pipettes completely immediately after use. After soaking, these pipettes need only to be rinsed thoroughly to be perfectly clean. Heavily soiled pipettes should be checked to be sure they are not solidly plugged, then placed in a jar or pipette washer with warm Haemo-Sol solution. Haemo-Sol cleans rapidly, but the exact time required will, of course, vary with the condition of the pipettes. Rinse thoroughly, adding a distilled-water rinse if necessary.

Glass Syringes – Immediately after use, draw Haemo-Sol solution into the syringe, expel, disengage syringe and needle, remove plunger, and immerse parts in Haemo-Sol solution. When convenient, rinse thoroughly. For badly soiled syringes, or syringes that were not pre-soaked, use warm Haemo-Sol solution in the usual way. For syringes soiled with blood, see general directions for blood removal.

"Frozen" Syringes, Stopcocks, etc. – Haemo-Sol solution is unsurpassed in its ability to loosen barrels of syringes that have become stuck, as well as "frozen" stopcocks and ground glass joints. Immerse the "frozen" syringe or joint in warm Haemo-Sol solution (50-60°C) until the Haemo-Sol has penetrated the entire ground glass surface. This usually takes ten to twenty minutes, but may take longer in difficult cases. Remove syringe or joint from Haemo-Sol bath and pull firmly with a slight twisting motion.

(Protect hands with gloves or a towel.) If parts are not freed immediately, return to the Haemo-Sol solution for further loosening, or use the steam-line to quickly heat the outside of the affected parts, and then try to pull them apart.

Metal Instruments – Metal instruments can be cleaned with Haemo-Sol in the same way as glassware. Immersion immediately after use; is just as important for an easy cleaning job, and is perfectly safe. Haemo-Sol with hinged instruments fully opened to expose bioburden, will not corrode metals. It will even remove rust that has already formed. Because of the sensitivity of aluminum to water in the presence of surface active materials, it is not recommended that aluminum equipment be soaked in Haemo-Sol solution. Rapid brushing with warm Haemo-Sol solution will clean aluminum easily without damage.

Rubber and Plastics – Rubber and plastics are cleaned efficiently by Haemo-Sol. Follow directions for glassware washing. Be sure the lumen of rubber and plastic tubing is completely filled with Haemo-Sol solution. Some types of clear plastic tubing absorb water from Haemo-Sol solution and become white and opaque. The water is removed rapidly on drying, and the dry tubing is as transparent as ever.

SPECIAL CLEANING PROBLEMS

Pathogenic Material

Glassware and instruments, other than aluminum, which may be contaminated with pathogenic organisms, may be autoclaved in Haemo-Sol solution. Sterilization and cleansing are effected simultaneously, and equipment need only be rinsed.

Soiled glassware and instruments autoclaved in the ordinary way before cleaning are often difficult to clean and will probably require a longer than usual soaking in warm Haemo-Sol solution.

Haemo-Sol is completely compatible with phenolic type germicides. Quarternary germicides are incompatible with Haemo-Sol.

Blood

Haemo-Sol is an excellent blood solvent. Un-clotted blood is quickly removed during ordinary soaking by its rapid haemo-digestive action. The removal of clotted blood is accomplished easily by the following procedure:

Immerse soiled articles in Haemo-Sol solution. Heat to 70-80°C for ten minutes. Allow to cool to a comfortable temperature. Empty out residual clots and rinse well. Brushing is rarely necessary unless the blood cells are allowed to dry prior to cleaning.

Agar

Glassware containing agar should be immersed in Haemo-Sol solution and heated to 80-90°C for fifteen to twenty minutes. The hot solution is then poured out or flushed out with water and the glassware rinsed thoroughly. If desired, the bulk of the agar may be scraped out before cleaning and the remainder removed by gently brushing after a short soak in warm Haemo-Sol solution.

Glassware containing agar that has been autoclaved in Haemo-Sol solution need only be flushed thoroughly when it is cool enough to handle, and then rinsed. Glassware containing agar that has been autoclaved without Haemo-Sol should be emptied of hot agar solution as soon as possible and immersed in hot Haemo-Sol solution for cleaning.

Haemo-Sol N.S. will even remove large quantities of agar completely if the mechanical washer used can be operated at 80-90°C with a fifteen to twenty minute wash cycle. For shorter cycles, the bulk of the agar should be scraped out before cleaning.

Wax Crayon, Stopcock, Grease, etc.

Haemo-Sol cleaning will generally remove wax crayon marks and stopcock grease without special attention. Wax crayon applied on ground areas or etched flasks, or applied to hot surfaces, may require light brushing. In difficult cases, brushing with a soft, wet brush sprinkled with Haemo-Sol powder is recommended.

To avoid needless brushing, wipe off excess crayon and grease with a cloth moistened with acetone or similar solvent before using Haemo-Sol. Silicone stopcock grease particularly should be wiped off before cleaning.

Pyrogens

Laboratory tests have proven that glassware and tubing washed with Haemo-Sol in the usual way and rinsed with pyrogen-free water is pyrogen free.

It is essential that such equipment be autoclaved as soon as possible and maintained in sterile conditions to prevent recontamination with pyrogens.

Tissue Culture

Glassware washed with Haemo-Sol and rinsed with water of suitable quality gives excellent results for growth of tissue cultures. Haemo-Sol washing removes all contaminants. Haemo-Sol rinses away completely leaving a perfectly clean glass surface.

Many laboratories have used the easy Haemo-Sol way to clean their tissue culture glassware for years.