

Cleaning and disinfection of Dräger X-plore 8000 with chlorine solution

General

This document describes a cleaning and disinfection process for the Dräger X-plore 8000 system with a chlorine solution. Please note that Dräger only assessed the compatibility of the equipment based on the process described below, but did not evaluate the effectiveness of any agents with regard to inactivating viruses or bacteria on our products.

The processes below were tested on X-plore 8000 components by running through 25 cleaning and disinfection cycles. The equipment was fully functional afterwards. However, please note that intensive cleaning and disinfection of X-plore 8000 components may result in color change or even reduced service life of components. All components have to be checked carefully after each cleaning and disinfection process and have to be exchanged if needed.

Please note that this document does not replace or in any way amend the Instructions for Use (IfU) for the X-plore 8000. The Instructions for Use must always be fully read and understood prior to any use, cleaning or disinfection of the device.

Other cleaning and disinfection detergents than the ones mentioned in this document or in the associated IfU(s) have not been tested by Dräger. Therefore, Dräger cannot assess if other detergents may cause any damage to the Dräger X-plore 8000 components or may reduce lifetime of the product.

Please observe and follow the following steps additionally:

- Read and follow the IfUs for all X-plore 8000 components.
- Read and follow the IfUs from the manufacturer of the cleaning and disinfection agents used.
- Carefully follow recommended concentration and time for the cleaning and disinfection agents used.
- Thoroughly rinse all components (battery attached to the PAPR unit) with clean, warm water and thoroughly dry them before use or storage.
- Always practice good hand hygiene.
- Follow local regulations for proper disposal of cleaning equipment and solutions.

Initial steps

1. Detach the headpiece from the hose.
2. Detach the hose from the PAPR unit.
3. Detach the Decon belt from the PAPR unit.
4. Discard the disposable hose cover if one is used. (Note: Dräger recommends using a disposable hose cover to make cleaning and disinfection of the corrugated hose easier.)

In order to prevent cross-contamination of material from the outside of the PAPR unit to the inside, it is recommended to clean and disinfect the outside of the unit first. Follow the process as described below.

Then remove the splash guard lid and the filter. Plug the hose connection opening as well as the blower inlet opening on the PAPR unit. Clean and disinfect the PAPR unit with the battery attached as described below.

Dispose of or reuse the filter according to your infection control policy. In case of reuse, clean and disinfect the filter as described below.

PAPR Unit with Battery

Do not immerse the PAPR unit or the battery.

Use caution when cleaning around the battery connector pins inside the battery compartment of the PAPR unit. It is critical not to bend or break the pins.

Clean PAPR unit with battery

Clean the outer surfaces of the PAPR unit and battery with a clean, soft cloth dampened with warm (max. 30 °C) water containing a mild pH-neutral (pH 6-8) detergent.

Rinse PAPR unit with battery

Rinse PAPR unit and battery by wiping with a clean, soft cloth dampened with clean warm (max. 30 °C) water. Alternatively, the PAPR unit with battery attached can be rinsed under running water. Please make sure that the plug for the hose connector as well as the plug for the inlet opening is properly attached to the PAPR unit.

Disinfect PAPR unit and battery

Disinfect the outer surfaces of the PAPR unit and the battery with a clean, soft cloth dampened with a 0.5 % chlorine solution or a solution containing 5,000 ppm available free chlorine or a comparable solution as specified by your facility, local health authority, WHO, or CDC. Follow the instructions for use of the selected disinfectant.

Rinse PAPR unit with battery

Rinse PAPR unit and battery by wiping with a clean, soft cloth dampened with clean warm (max. 30 °C) water. Alternatively, the PAPR unit with battery attached can be rinsed under running water. Please make sure that the plug for hose connector as well as the plug for inlet opening is properly attached to the PAPR unit.

Note: It is important to rinse off chlorine based products.

Decon belt (carrying system)

Clean Decon belt

Clean the entire Decon belt with a clean, soft cloth dampened with warm (max. 30 °C) water containing a mild pH-neutral (pH 6-8) detergent.

Rinse Decon Belt

Rinse Decon belt thoroughly under running water.

Disinfect Decon belt

Prepare a disinfection bath with a 0.5 % chlorine solution or a solution containing 5,000 ppm available free chlorine or a comparable solution as specified by your facility, local health authority, WHO, or CDC. Follow the user instructions for the selected disinfectant. Place Decon belt to be disinfected into the disinfectant bath for 30 minutes.

Rinse Decon belt

Rinse Decon belt thoroughly under running water.

Note: It is important to rinse off chlorine based products. Certain other disinfectants may not require this step. Follow the instructions for use of the disinfectant selected.

Headpieces

Standard Hoods

The long and short Standard hood is not intended for cleaning and disinfection. If used in applications which may result in a critical contamination of the hood, it is recommended to dispose the hood after every use.

Premium Hoods

Remove the sweatband from the hood before cleaning and disinfection. It is recommended to replace the sweatband after every use.

The long and short Premium hood can be cleaned by using the same process as described for the PAPR unit and battery. The Premium hood can be fully immersed for final rinsing with clean water alternatively.

Full face masks

The full face mask can be cleaned and disinfected by following the same process as described for the Decon belt.

Before cleaning the full face mask has to be disassembled as described in the IFU. The described process has to be used for all components.

When fully dried, the full face mask has to be assembled, inspected and tested as described in the IFU.

Other components

Hose

The hose can be cleaned and disinfected by following the same process as described for the decon belt. If immersed into a cleaning or disinfection solution, please make sure that also the inside of the hose is properly rinsed with clean water afterwards.

Filter

If the filter is intended to be reused, the outer housing can be cleaned by following the same process as described for the PAPR unit and the battery.

Please note the following limitations:

- Do not allow any liquid to enter the filter body.
- Do not attempt to clean the media inside of the filter body.
- Do not spray the filter as doing so may damage the filtering media.
- Do not immerse the filter or clean under running water.

Keep in mind that a potential contamination may affect the filter media inside the filter body as well. This should be considered when the decision is taken whether a filter should be reused or disposed after every use. It should also be considered for a proper storing of the filter in case of reuse.

Splash guard lid

The splash guard lid can be cleaned and disinfected by following the same process as described for the Decon belt.

Final steps for all components

Properly dispose all potentially decontaminated components and waste according to local regulations.

Ensure all components are dry prior to reuse or storage. Allow all components to dry at open air. Keep away from direct sunlight. Decon belt, hose and premium hood can alternatively be dried in a drying closet (max. 60 °C).

All components have to be inspected and tested according to the associated IFU(s) prior to the next use!