# **RESPIRATORY RESOURCE**



# Cleaning and Disinfecting your Bullard PAPR

When preparing to clean a PAPR there are many considerations. Two important considerations are:

1) Will the cleaning solution/disinfectant and/or method be effective?

At this time there isn't a single solution or method that is recommended. The Centers for Disease Control (CDC) guideline is to use an EPA-registered disinfectant wipe or spray in accordance with the PPE" manufacturer's recommendations. However, at the USAID Ebola PPE workshop in Washington DC 10/10/14, attendees were told that 0.5% chlorine was the solution being used by the CDC in the field for disinfection.

Important: Bullard has not evaluated any cleaning solution/disinfectant with regard to inactivating viruses on Bullard equipment.



2) Will the cleaning solution/disinfectant and/or method be damaging to the equipment?

PAPR wearers must consult their specific PAPR manufacturer's instruction manual to ensure that the PAPR is not damaged during disinfection.

For Bullard PAPRs, each component is listed and describes what most customers do to clean the component and what will not harm the product. Important: All components should be inspected for possible damage and degradation, which are likely with repeated disinfectant use, before each donning and should not be used if there are any signs of such.

#### **Initial Steps and Inspection**

- 1. It is important to follow the User Instruction inspection procedures supplied with the Bullard PAPR unit and headgear to identify any damage, excessive wear, or deterioration of components and replace them as necessary.
- 2. Detach the battery pack, breathing tube and waist belt from the motor/blower.
- 3. Detach the headgear from the breathing tube.
- 4. Discard the breathing tube cover, if one is used.

#### **CC20 Series Hoods**

If possible, limit hoods to a single use.

If hoods are to be re-used then wipe down the outside with the disinfectant.

Bullard's 20FLF Hood Cleaning Technical Bulletin (http://apps.bullard.com/files/RP\_20LFLHOODCLEANING\_TECHBULLETIN\_AM\_EN\_LOW\_8214.pdf?282833807) is applicable to the Bullard CC20 Series hoods and shows that they may be wiped down with a variety of cleaners from alcohol to bleach several times before they need to be discarded due to degradation. The interior headgear may also be wiped down with the same disinfectants as the outside of the hood but care must be taken not to contaminate the inside of the hood.

#### Motor/blower unit and battery pack

- 1. Do not allow liquid to enter the air outlet and inlet ports.
- Use caution when cleaning around the battery pack connector pins on the motor/blower.It is critical not to bend or break the pins. Ensure this area and the pins are thoroughly dry before next use or storage.
- 3. Wipe the outer surfaces of the PAPR assembly and battery pack with the same disinfectant as the CC20 Series hood. Important: Do not immerse the motor/blower or battery pack during cleaning.

## **Breathing tube**

- 1. Customers may wish to use the POLYBTC to cover their breathing tube to eliminate the need for decon. The ends would be taped to seal the cover.
- 2. Clean the breathing tube by wiping it down with the same disinfectant as the hood and blower unit.
- 3. Allow the breathing tube to completely air dry prior to reuse or storage. Air dry in an uncontaminated atmosphere, temperature not to exceed ~49°C (120°F). Alternately, dry by connecting to the motor/blower unit and use it to force air through the tube until dry.

#### HE filter

- 1. Remove the filter from the PAPR motor/blower assembly.
- 2. The best practice is to properly dispose of the used filter according to local regulations.
- 3. Only the outer surface can be cleaned (via wipedown). Care should be taken not to touch an exposed surface of the filter.
- 4. A Technical Advisory (http://apps.bullard.com/files/RP\_FILTEREDPARTICLES\_TECHBULLETIN\_AM\_EN\_LOW\_8069.pdf?928643990), written for the PA1FG3 filter but applies to all Bullard PAPR HE filters, shows that Bullard HEPA filters are mechanical, as opposed to electrostatic, and therefore don't release trapped particles when the air flow stops.

#### **Belt and Backplate**

These are the only items that can be immersed but most customers still wipe down.

#### Inspect

Americas:

Discard if there are signs of degradation or damage.

### Re-assemble

Following User Instructions.

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