

Cleaning and Disinfecting RPB® PX4 Air® and PX5® Powered Air Purifying Respirators and Z-Link®, T-Link® and T200™ Headtops

Protection from COVID-19 Exposure

Quick Summary

The following disinfectants may be used on RPB PX4 and PX5 PAPRs and Z-Link, T-Link and T200 external surfaces:

- Ethanol (70-97%)
- Sodium hypochlorite (0.5% Solution)

These disinfectants are effective against SARS-COV-2 (according to EPA).

Description

These guidelines are to help employers develop cleaning and disinfecting protocols for RPB PX4 Air and PX5 Powered Air Purifying Respirators (PAPRs), Z-Link, T-Link and T200 respirator headtops, and specifically, to select appropriate disinfecting agents for SARS-COV-2.

The United States Environmental Protection Agency (EPA) has identified disinfectants that are effective on surfaces contaminated with SARS-COV-2 (COVID-19) (<https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>). Of the listed disinfectants, ethanol (70-97%) and sodium hypochlorite (0.5% Solution) can be used on RPB PAPRs (PX4 & PX5), Z-Link, T-Link and T200. These chemicals have been tested on our products and will not damage them. Other cleaning methods, such as other chemicals or autoclaves, may damage the equipment.

Ethanol and sodium hypochlorite are also effective on a variety of other pathogens. See the U.S. Centers for Disease Control and Prevention (CDC) guidelines for disinfection and sterilization in healthcare settings (<https://www.cdc.gov/infectioncontrol/pdf/guidelines/disinfection-guidelines-H.pdf>).

Note: RPB relies on the EPA and CDC regarding these products' disinfecting capabilities. RPB has not independently confirmed the effectiveness of these agents.

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Cleaning and Disinfecting Procedures

- Follow your infection control policy and manufacturer's instructions to use the disinfecting agents correctly. Wear PPE appropriate for both the potential contaminants and for the cleaning products used.
- Use only water, mild detergent, and ethanol (70-97%) or sodium hypochlorite (0.5%).

Cleaning and Disinfecting the PX4 and PX5 PAPR:

The guidelines for cleaning and disinfecting PAPRs are strictly for the housing unit. Do not clean or disinfect the filter.

PAPR Preparation:

1. Breathing tube: Leave the breathing tube attached. If using a Tychem® breathing tube cover, remove and dispose it.
2. Inspection: Inspect the product according to the instruction manual (available at rpb.com/resources).
3. Belt:
 - PX4: Leave the belt in place.
 - PX5: Unclip the belt holder from the PX5 fan housing.
4. Filter: Do not clean or disinfect the filter. Leave pre-filter and HEPA filter installed until it is time to replace filter. Refer to filter change out guide below.
5. Battery:
 - PX4: Remove the battery.
 - PX5: Leave the battery sealed in the battery compartment. It can be removed after the unit has been cleaned & disinfected.

PAPR Cleaning and Disinfecting:

Do not submerge the PX4 or PX5. Keep liquid out of the breathing tube and outlet of the PAPR.

WARNING! The PX4 Air has electrical components and could cause injury if put in contact with water.

1. Use a damp cloth with mild detergent to clean before disinfecting.
 - a. Clean the breathing tube.
 - b. Clean the filter doors and fan housing.
 - c. Clean the belt and belt holder.
 - d. For the PX4, carefully wipe the PX4 Battery and avoid getting the battery contacts wet.
2. Rinse off detergent residue and dry completely.
3. Apply either ethanol (70-97%) or 0.5% sodium hypochlorite with a cloth.
4. Allow the disinfectant to sit on the surface for the contact time specified by EPA in List N.
5. Use a damp cloth to remove all residual disinfectant solution. Do not allow water to get in the inlet or outlet of the PX4 or PX5.
6. Before storing or using, air dry all parts at temperatures below 100°F.

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Cleaning, Disinfecting & Rinsing the Z-Link, T-Link or T200 Headtop

Note: RPB does not recommend sharing the Z-Link, T-Link and T200 respirator headtop between users. If sharing occurs, clean and disinfect between users.

Z-Link, T-Link & T200 Preparation

1. Breathing tube: Disconnect the breathing tube. If using a Tychem® breathing tube cover, remove and dispose it.
2. Inspection: Inspect the Z-Link/T-Link/T200, including frame and padding, according to the instruction manual. Replace worn or damaged parts.
3. Tychem® hood: DuPont™ does not specify how many times a Tychem® hood can be reused. Examine for signs of wear, tears, stitching, or other damage after each use to determine if a hood can be reused. Refer to DuPont™ documentation (linked below) for further information. If reusing the hood, leave it in place and clean and disinfect with the Z-Link/T-Link/T200.

Z-Link, T-Link & T200 Cleaning and Disinfection

1. Padding can be washed in cold water with mild detergent. Air dry all parts at temperatures below 100°F before reinstalling.
2. Clean all Z-Link/T-Link/T200 and hood surfaces with a damp cloth and mild detergent.
3. Apply ethanol (70-97%) or 0.5% sodium hypochlorite.
4. Allow the disinfectant to sit on the surface for the specified contact time (see EPA List N and manufacturer's instructions).
5. Rinse thoroughly to remove residual cleaning and disinfecting solution.
6. Before storing or using, air dry all parts at temperatures below 100°F.

Reassembly & Storage of the Respirator

1. After drying completely, reassemble the PX4 or PX5 PAPR and the Z-Link, T-Link or T200.
2. PX4/PX5: Charge the battery.
3. Store in a clean environment.

Filter Changing Guide

Follow your organization's infection control policies for timing of PAPR filter changes. PAPR filters will typically not become clogged with particles when used to reduce airborne biological aerosols that contain viruses. Therefore, filter changes will not be required due to reduced airflow. Your organization's infection control policies should define filter change intervals based on best practices for the biological exposures involved.

Do not attempt to clean the filter. Replace and dispose filters according to your employer's established hygiene and infection control practices.



For complete safety, inspection, and use information, see the instruction manuals for each product available at rpbsafety.com/industrial/resources

Works Cited

DuPont. (2020, March 24). Cleaning Guidelines for DuPont™ Tychem® garments for COVID-19. Retrieved from DuPont: [https://www.dupont.com/content/dam/dupont/amer/us/en/personal-protection/public/documents/en/Cleaning%20Guidelines%20for%20DuPont\(TM\)%20Tychem\(R\)%20Garments.pdf](https://www.dupont.com/content/dam/dupont/amer/us/en/personal-protection/public/documents/en/Cleaning%20Guidelines%20for%20DuPont(TM)%20Tychem(R)%20Garments.pdf)

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