

Cleaning and Disinfecting 3M™ Versaflo™ M-Series Headgear following Potential Exposure to Coronaviruses: Healthcare

Description

During coronavirus outbreaks, some healthcare organizations may assign powered air purifying respirators (PAPRs) with 3M™ Versaflo™ M-Series headgear to workers providing care for patients with suspected or confirmed cases of coronavirus. This document contains considerations related to cleaning and disinfecting 3M™ Versaflo™ M-Series headgear after potential exposure to coronaviruses in the healthcare setting.

The 2008 U.S. Centers for Disease Control and Prevention (CDC) publication [Guideline for Disinfection and Sterilization in Healthcare Facilities](#) (updated May 2019) includes information on disinfecting equipment and surfaces potentially contaminated by coronaviruses. The U.S. CDC investigated many chemicals and cited several chemical germicides as being effective for coronaviruses, including sodium hypochlorite (at free chlorine concentration of 5,000 ppm) when used as indicated in the product user instructions. In areas outside of the United States, where U.S. EPA-registered disinfectants may be unavailable, this U.S. CDC publication may be a useful supplement to applicable local guidance.

More recently, the U.S. CDC has published [Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 \(COVID-19\) in Healthcare Settings](#) indicating that U.S. EPA-registered, hospital-grade disinfectants are appropriate for SARS-CoV-2 in healthcare settings. Refer to [List N](#) on the U.S. EPA Website for U.S. EPA-registered disinfectants that can be considered for use against Novel Coronavirus SARS-CoV-2, the cause of COVID-19. Locations in Canada may also want to refer to the [Health Canada List of Hard Surface Disinfectants for COVID-19](#).

Of the chemicals listed by the U.S. CDC as being appropriate for coronaviruses and those included on the U.S. EPA's registered list for use against SARS-CoV-2, only certain chemicals can be considered for use with the 3M™ Versaflo™ M-Series headgear per the 3M product User Instructions and the guidelines included in this document. Using methods other than the disinfectants recommended below may degrade materials and shorten the life of 3M™ Versaflo™ M-Series headgear.

Possible Disinfection Methods

- Sodium hypochlorite solution (at a free chlorine concentration of 5,000 ppm) with 1-minute contact time

If a U.S. EPA-registered disinfectant is required:

- Clorox Healthcare® Bleach Germicidal Disinfectant Wipes (EPA Reg. No. 67619-12)
- 3M™ C.diff Solution Tablets (EPA Reg. No. 71847-6)
- ECOLAB® KLERCIDE™ 70/30 IPA (EPA Reg. No. 1677-249)
- PeridoxRTU™ (EPA Reg. No. 8383-13)
- Sani-Cloth® Bleach Germicidal Disposable Wipes (9480-8)

While the U.S. EPA-registered disinfectants listed above are believed to be generally compatible with M-Series Headgear, testing per the ANSI Z87.1 Eye Protection Standard and ANSI Z89.1 for Industrial Head Protection has NOT

been performed after use of these disinfectants. If protection per these standards is required for your work environment, do not use the U.S. EPA-registered disinfectants listed above.

Always read and follow the user instructions and/or EPA label for your selected disinfectant. 3M strongly recommends that a water rinse/wipe down occur after each disinfection to thoroughly remove disinfection solution and reduce the possibility of user irritation and premature degradation of equipment.

Your facility should review this information thoroughly prior to selecting a disinfecting product for your equipment and specific application. Follow the hygiene and infection control practices established by your employer for the targeted organisms, including coronaviruses.

NOTE: 3M relies on the expertise of the U.S. CDC and U.S. EPA with respect to microbiological efficacy and has not evaluated the effectiveness of these agents with regards to inactivating viruses on 3M equipment.

Please always refer to the latest information from trusted sources such as the [World Health Organization \(WHO\)](#), the [U.S. Centers for Disease Control and Prevention \(US CDC\)](#), the [U.S. Occupational Safety and Health Administration \(OSHA\)](#) and the [European Centres for Disease Prevention and Control \(ECDC\)](#) regarding selection, use, maintenance and cleaning of personal protective equipment.

Note that components of 3M™ Versaflo™ M-Series headgear may become damaged over time with prolonged or extended use of disinfecting products. As discussed in the product User Instructions, users must inspect the components of their 3M™ Versaflo™ M-Series headgear following each disinfecting cycle and prior to re-use. If you discover any signs of damage, remove the component from service and either discard and replace or repair as appropriate, following the guidance in the product User Instructions.

Cleaning and Disinfecting the M-200 Series Faceshields, M-300 Series Hard Hats, and M-400 Series Helmets

It is important to always read and follow the specific M-Series Headgear User Instructions. The following general guidelines can be utilized as an additional reference for cleaning, sanitizing, and/or disinfecting your M-Series Headgear assembly. Please also refer to the [3M Technical Bulletin on Inspection, Cleaning and Storage Procedures for 3M™ Versaflo™ M-Series Headgear Assemblies](#).

General

- 1) Cleaning is recommended after each use. Nitrile or vinyl gloves should be worn during cleaning as well as other personal protective equipment (PPE) as indicated.
- 2) With any disinfecting agent, follow the User Instructions and/or U.S. EPA label in regards to usability, application and contact time.
- 3) Ensure all components are thoroughly rinsed with fresh, warm water and thoroughly dried before use or storage.

Cleaning

If cleaning to remove gross soil before disinfection, clean all parts of the M-Series assembly with a clean soft cloth dampened with warm water containing a mild pH neutral (pH 6-8) detergent (refer to specific product User Instructions for water temperature guidance).

The comfort pad/sweat pad (M-957) may be hand washed or laundered with a solution of soapy water.

Disinfecting

Disinfect the M-Series Headgear assembly with the disinfectant cleaner. Follow the user instructions and/or EPA label for the selected disinfectant. Surfaces must be visibly wet with disinfectant for the full specified contact time.

Rinse

Remove disinfection solution from the M-Series Headgear assembly by wiping with a clean cloth dampened with fresh water. Rinse the cloth often to help ensure effective removal of the disinfectant solution.

Dry

All components should be allowed to air-dry completely prior to reuse or storage. Air dry in an uncontaminated atmosphere, temperature not to exceed 49 °C (120 °F).

After Cleaning and Drying

Inspect the M-Series Headgear assembly following the inspection procedures in the *User Instructions*.

Some cleaning and/or sanitizing products can pose health risks if they come into contact with a user's skin. Customers must ensure that their PPE cleaning and sanitization procedures are within established safe levels and do not result in exposures to cleaning/sanitizing chemicals at levels capable of causing adverse health effects.

Cleaning Fabric Components

The comfort pad/sweat pad (M-957) may be hand washed or laundered with a solution of soapy water.

The cleaning, disinfecting, rinsing and drying steps previously outlined can be followed for the Standard Faceseal (M-935), Comfort Faceseal (M-936), Head, Neck and Shoulder Cover (M-976) and Standard Outer Shroud (M-445).

The Flame Resistant Faceseal (M-937) can be cleaned/disinfected using the same cleaning, disinfecting, rinsing and drying wipe-down steps as outlined, but cleaning may result in loss of flame-resistant properties. If flame-resistant properties are required in your environment, do not clean or disinfect the M-937.

Inner Collar (M-444) can be gently hand washed or laundered at low temperature (not to exceed 104 °F or 40 °C) with mild detergent. Do not use chlorine bleach or fabric conditioners. Thoroughly air dry before storage or reuse.

Premium Outer Shroud (M-446) can be cleaned using clean cloth or sponge dampened with a mild solution of water and liquid household soap to gently wipe down the outer surface and the shroud gasket. Shroud may also be gently hand washed or laundered at low temperature (not to exceed 104 °F or 40 °C) with mild detergent. Do not use chlorine bleach or fabric conditioners. Thoroughly air dry before storage or reuse.

Flame Resistant Outer Shroud (M-447) can be gently hand washed or laundered at low temperature (not to exceed 104 °F or 40 °C) with mild detergent. Do not use soaps. Soap scum can adversely affect thermal protective performance. Chlorine bleach can be considered but it may cause loss of strength and color over time. Wash separately from other fabrics. Thoroughly air dry or dry on low setting before storage or reuse.

High Durability Outer Shroud (M-448) can be gently hand washed or laundered at low temperature (not to exceed 104 °F or 40 °C) with mild detergent. Do not use chlorine bleach or fabric conditioners. Thoroughly air dry or dry on low setting before storage or reuse.

Commercial Respirator Washers and Dryers

The M-Series Headgear may be washed/disinfected in a commercial respirator washer such as Georgia Steel model GS1200, and dryer such as Georgia Steel model GS3000.

The following step procedure is recommended.

- Remove the faceseals and/or shrouds. Do not wash faceseals and/or shrouds in the commercial washer/dryer
- Remove visor frame and suspensions (including the webbing) and place separately in the washer and dryer
- Wash with appropriate respirator detergent such as Georgia Steel FK270-G low foam detergent. Washing temperature should not exceed 120 °F (49 °C)
- Use appropriate Disinfecting agent such as Georgia Steel FG350 disinfectant¹
- Use appropriate rinse aid such as Georgia Steel Rinse Aide RP355
- Place components in dryer and dry for 20 min at 120 °F (49 °C)
- Reassemble and thoroughly inspect the headgear following the cleaning cycle before storage and next use. Replace any damaged components.

User Instructions

[3M™ Versaflor™ M-Series Headgear User Instructions](#)

Glossary of Terms

Below is a glossary of terms used in this document^{2, 3}.

Cleaning

Removal of all soil (organic and inorganic) and foreign material from objects and surfaces. This is typically accomplished with water and mechanical action. Detergents may be used to assist the process.

NOTE: Failure to remove foreign material (soil, face oils, etc.) from an object can adversely affect the disinfecting process.

Disinfecting

A process of inhibiting or destroying disease-producing microorganisms (but may not kill bacterial spores). It usually involves the use of chemicals, heat, and/or ultraviolet light and is divided into three categories: high, intermediate and low-level disinfection.

Important Information

Before using any of the products or information detailed herein, you must evaluate it and determine if it is suitable for your intended use. You assume all risks and liability associated with such use. 3M makes no warranties relating to the

1. Georgia Steel FG350 disinfectant is not included in List N: Disinfectants for use against SARS-CoV-2. Contact Georgia Steel for disinfection information.

2. Rutala, WA. American Journal of Infection Control. APIC Guideline for Selection and Use of Disinfectants. Vol. 24, No.4, pp. 313-342, August 1996.

3. Rutala, WA. CDC. Guideline for Disinfection and Sterilization in Healthcare Facilities. 2008.

efficacy of any of the products detailed herein in preventing the spread and/or contraction of coronavirus. 3M will not be liable for any loss or damage arising from any information contained herein, whether direct, indirect, special, incidental or consequential, regardless of the legal or equitable theory asserted, including warranty, contract, negligence or strict liability.

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If you have any questions or concerns, please contact your local 3M representative.

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