

3M FAQ Update II: Disinfecting Fall Protection Equipment COVID-19 Concerns

Description

In April 2020, 3M Fall Protection published [3M FAQ Update: Disinfecting Fall Protection Equipment - COVID-19 Concerns](#) providing updated guidance on COVID-19 disinfection concerns of 3M fall protection personal protective equipment (PPE).

Since publication, 3M has identified consumer resources promoting disinfection solutions such as Ozone chambers and Ultraviolet Light systems for disinfection of materials and items such as sporting clothing, uniforms, gloves, linens and a variety of other porous materials. Although not directly advertised as being specifically suitable for use on personal fall protection components and systems, many fall protection equipment consumers are communicating to 3M of their interest in using these disinfecting options on products that we manufacture. At 3M, we continue to understand users are seeking quick methods of disinfection solutions such as spray or wipe-on types of disinfectants for their PPE. Based on extensive research, 3M remains unaware of any disinfection processes that have been scientifically proven to both safely disinfect and not degrade the porous synthetic materials often used to manufacture safety harness web straps and shock absorbing lanyards. Many webbing and stitching elements are extremely porous and when exposed to chemicals found in many disinfectants may degrade and ultimately affect the product's original design and strength requirements.

Methods of disinfection including UV light and Ozone chambers are often discussed today in the occupational industry as a result of the current Covid-19 pandemic. Upon initial reviews, there are several concerns raised with their use on personal fall protection equipment.

- 1) UV light is often restricted from penetrating into porous materials such as harness webbing, essentially only exposing light on to the directed surface.
- 2) The complex geometry of a fall protection harness paired with the directional nature of UV light make it very challenging to ensure all surfaces are exposed adequately for disinfection.
- 3) UV exposure is known to cause damaging degradation in many synthetic materials such as nylons and polyesters commonly used in safety harness manufacture. http://itrsonline.org/word-press/wp-content/uploads/2017/11/2017_Webbing_UV_Radiation_Wright.Eldredge.Salmon.pdf
- 4) 3M is not aware of any study showing how long and what type of UV light exposure is needed to physically kill COVID-19 virus on porous materials.
- 5) Ozone is identified to be caustic in some capacity to materials commonly used in the manufacture of personal fall protection equipment. These materials may include mild steels, zinc, polypropylene, polyamide, nylon, aluminum, nitrile, reinforced plastics, galvanized steel and Delrin. <https://ozonesolutions.com/blog/ozone-compatible-materials/>
- 6) We are not aware of any studies or data identifying exposure rates and concentration levels of these processes that may potentially damage safety harness(es) / lanyard(s) to the point of developing performance concerns or catastrophic failures of the personal fall arrest system(s).

It is critical we help our customers to understand the potential negative implications that certain types of non-approved disinfecting / cleaning exposures may have on these types of personal protective equipment specifically designed for fall protection applications. Unlike gloves, protective eyewear, coveralls, etc., that are generally intended to provide a layer/barrier of protection between the worker and the hazard, fall arrest systems are designed to be dynamically exposed and subjected

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to forces permitted by OSHA 29 CFR1910.140 and 29 CFR 1926.502 to be upwards of 1,800 pounds of force to the body as a system.

Degradation of webbing, stitching and other materials potentially caused by unapproved disinfecting/cleaning methods may produce dangerous impacts to performance of these devices when subjected to fall arrest forces.

In these times of uncertainty, we urge you to seek the support of your PPE manufacturers and suppliers. This should include reading and fully understanding their published product PPE documentation, user instructions and warnings including those warnings associated with their recommended disinfecting and cleaning agents.

3M continues to recommend you follow our guidelines for cleaning your 3M personal fall protection equipment. You may reference [3M Technical Bulletin - Cleaning of Web in Personal Fall Protection Products](#) and the specific product user instruction manual for references.

The CDC also provides guidance on cleaning and disinfection practices in the workplace by visiting <https://www.cdc.gov/coronavirus/2019-ncov/community/reopen-guidance.html>

Additional information is provided by the Centers for Disease Control (CDC). General information is available at <https://www.cdc.gov/coronavirus/2019-ncov/> and <https://www.cdc.gov/coronavirus/2019-ncov/prepare/transmission.html> If you have any additional questions or concerns, please contact 3M Fall Protection Technical Services at 800-328-6146 or email at 3Mfallprotectiontech@mmm.com