Fall Protection

Technical Bulletin

Release 1, September 2017

Inspection and Cleaning of 3M Personal Fall Protection Products:

Guidelines for Products Exposed to Flooding and Other Extreme Weather Conditions

Description

The information included in this advisory has been provided as a guideline to assist with cleaning and inspection of personal fall protection products that have been exposed to extreme environmental conditions as a result of hurricane force winds, flooding or submersion. A Competent Person (as defined by OSHA) must be engaged to assess each piece of personal fall protection component affected and provide direction on next steps. These steps may include general cleaning, laundering, inspection, factory authorized service or proper disposal. Regarding the proper handling, inspecting, repairing and shipment of affected equipment, it is recommended that only persons incorporating and utilizing suitable personal protective equipment perform these functions. These PPE items may include gloves, protective eyewear, respiratory protection or other protective measures.

The CDC and FEMA may also provide guidance on personal protective measures.
You may visit https://www.cdc.gov/niosh/topics/emres/pre-workers.html or
https://www.fema.gov/media-library-data/20130726-1604-20490-7953/fema549_apndx_e_ra2.pdf

Any questions should be directed to 3M Technical Services at 800-328-6146 or contact your local 3M distributor for support.

Webbing or Textile Type Products Used in Fall Protection Systems

Webbing or textile type products used in personal fall protection systems include ropes, lifelines, energy absorbing lanyards, full body harnesses, and belts.

Personal Fall Protection products manufactured from webbing/textiles are recommended to be cleaned periodically to help extend the life expectancy of the product and to maintain product performance. Products that have been submerged in flood waters may require cleaning/disinfecting prior to use. In some cases, depending on the type and level of contamination, the product may need to be removed from service and disposed of. Because of the wide variety of cleaning processes available and the potential effects on performance, 3M Fall Protection recommends the following guidelines.

Scope

The cleaning processes and procedures specified in this advisory apply to 3M DBI-SALA and Protecta nylon and polyester webbing products used in Personal Fall Arrest Systems (PFAS). Synthetic rope products, such as lifelines or lanyards, can be cleaned using similar processes. Because rope type lanyards are typically more economical to purchase than most other fall protection products, it may be difficult to justify the effort to clean these items rather than replace them. The potential damage (e.g., wear, cuts, etc.) to rope lanyards in many applications also makes cleaning difficult to justify. Specialized web materials (e.g., Kevlar® fiber, elastic types, and reflective elements) and hardware materials/coating must be analyzed prior to cleaning to determine effectiveness and potential damage from the cleaning process.

Frequency

General laundering itself is not known to significantly contribute to strength loss, although it has been observed that commercial washing may cause abrasion between metal hardware elements and webbing straps, and cause degradation of product markings. Laundered products must be inspected after laundering and prior to use, to determine if the product is acceptable for use. The specific length of time between laundering is solely dependent on the cleanliness of the product. Some applications may require weekly cleaning; other applications may require the product to be cleaned on an annual basis.

Test Samples

Laundering is generally effective on typical dirt and grease exposures found in many industrial settings. Most paints, tar, and industrial contaminants cannot be completely removed from webbing. It is recommended that test samples be laundered and inspected before a large quantity is processed to determine the effectiveness of laundering. Post laundering destructive testing of samples may be appropriate if concerns exist regarding the product's ability to perform as designed.

Laundering Procedure

Various procedures can be effective in cleaning web products. High-pressure power type washers and steam cleaners should not be used when cleaning web products due to potential damage to the web fibers. Two acceptable procedures are detailed below.

Hand Scrubbing

This procedure is generally effective for low volumes of equipment. The product can be presoaked in a warm water/cleaner solution prior to hand-scrubbing. The water temperature, when laundering, should not exceed 130° F (54.4° C). A mild detergent (bleach free) such as one used for the laundering of personal clothing articles is recommended. The hand scrubbing action will help break down the dirt, grease, or other material on the webbing. Once cleaned, the product should be rinsed in clean water and hung to air dry in a well-ventilated area out of direct sunlight. Never exceed 130° F (54.4° C) when drying.

Machine Wash

A top or side loading agitating style washing machine (commercial or consumer type) is acceptable for cleaning web products. The product should be placed in a mesh laundry bag to prevent entanglement. A full wash and rinse cycle should be performed using a mild detergent (bleach free) such as one used for the laundering of personal clothing articles. The water temperature, when laundering, should not exceed 130° F (54.4° C). Once cleaned, the product should be hung up to air dry in a well-ventilated area, out of direct sunlight. Never exceed 130° F (54.4° C) when drying.

Cleaning Agents

A mild detergent (bleach free) such as one used for laundering clothing is acceptable. For added cleaning power, a commercial/industrial strength cleaning agent can be used.

Commercial Laundry Detergent		For Scrubbing by Hand	
By Pas 1500 Series	By Pas International Corp. P.O. Box 14 Hudsonville, MI 49426 Phone: (616) 772-5100 http://www.bypasclean.com/?s=1520	**Citra-Scrub**	Share Corporation P.O. Box 245013 Milwaukee, WI 53224 Phone: (414)355-4000 http://www.sharecorp.com/sites/default/files/044001_013117%20Share%20Corporation%20Citra-Scrub_SDS.pdf
Flo-Class	U.N.X. Incorporated 707 Arlington Blvd. Greenville, NC 27858 Phone: (252) 756-8616 http://www.unxinc.com/85349727/513.pdf		
Innovator Plus	EcoLab Attn: Textile Care Division 370 N. Wabasha St. Paul, MN 55102 Phone: (800) 553-8683		

The cleaning agent supplier you select should be asked to recommend the amount of cleaning agent to use (and disposal instructions) based on your procedure and the degree of cleaning required. Also, if a consumer type washing machine is to be used, consult cleaning agent supplier for compatibility. The cleaning agents listed have been reviewed and approved for use. 3M recommends cleaning agents not listed be reviewed by 3M for approval prior to cleaning.

Cleaning Agent Specifications

The pH level (acidity or alkalinity) of the cleaning solution should be no higher than 12. A pH level higher than 12 may harm the webbing and effect the performance of the products.

Mechanical Devices Used in Personal Fall Protection Systems

Mechanical devices used in personal fall protection systems including self-retracting lifelines, rescue retrieval devices, lifting winches, confined space equipment, horizontal lifeline systems, vertical lifeline systems, and anchorages.

Scope

The cleaning processes and procedures specified in this advisory only apply to 3M DBI-SALA and Protecta personal fall protection components.

Mechanical devices such as self-retracting lifelines, rescue retrieval devices, and lifting winches have internal mechanisms that when submerged in water and/or foreign materials can become contaminated and restrict or prohibit the proper fall protection braking and locking functions of the device. It is recommended that these devices be removed from service immediately and professionally inspected (externally and internally), restored / repaired for proper working function, and then recertified by an authorized 3M service center or agent.

IMPORTANT NOTE

Some products, including select personal self retracting devices (SRD's), are not repairable and incapable of being internally inspected. Therefore, when this type of SRD has been submerged / flooded, it must be taken out of service and not used.

IMPORTANT NOTE

End users can perform the following cleaning procedures: DBI-SALA Sealed Blok SRD's can be flushed internally with fresh water without disassembly. Fresh, clean water can be poured or sprayed inside the unit through the lifeline port on the bottom of the housing. After flushing, hang the device from the handle and allow water to drain from the inside until dry.

Devices such as confined space bases, tripods, davits, anchorages, horizontal lifeline systems or vertical lifeline systems can generally be cleaned with a mild soap and clean water solution and inspected by a Competent Person (as defined by OSHA). Inspection should include proper working function and all applicable labels and warnings are intact and legible.

Any device that contains electrical or battery supported components should be removed from service and sent to an authorized 3M service center or agent.

If you have any questions regarding these guidelines or questions about 3M fall protection products not specifically addressed in these guidelines, please contact 3M Technical Service at 800-328-6146.

3M Fall Protection Business
Personal Safety Division
3833 SALA Way
Red Wing, MN 55066

Technical Service: 800-328-6146
3M.com/FallProtection

3M PSD products are occupational use only.

© 3M 2017. All rights reserved.
3M, DBI-SALA, and Protecta are trademarks of 3M Company and affiliates. Kevlar is a registered trademark of DuPont.
Used under license in Canada.
All other trademarks are property of their respective owners.
Please recycle. Release 1, September 2017