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CMC RESCUE TECHNICAL REPORTS



DECONTAMINATING LIFE SAFETY ROPE AND WEB

For many years, the manufacturers of life safety ropes have recommended the use of a cleaning product designed for life safety ropes, such as LifeLine Cleaner, or a mild soap that is safe for nylon or polyester products, such as Woolite®. Harnesses and web products are also made of nylon or polyester and the same washing considerations apply to those products as well.

With the increasing concern for personal safety when dealing with blood-borne pathogens, a procedure was needed to decontaminate rope and harnesses that was not in conflict with safe washing of these products.

Life safety rope or web that has come into contact with blood or other body fluids can be cleaned using chlorine bleach per your department's protocols for decontaminating equipment. The small amount of bleach specified in most decontamination protocols should have minimal effect on nylon or polyester fibers. This would hold true for harnesses and other web products, although some minor discoloration may occur.

A study was conducted by the CMC Rescue School staff as part of a presentation at the 2002 International Technical Rescue Symposium. The effect of a variety of contaminants on kernmantle rescue rope was evaluated. We found that chlorine bleach, when used in a 10% solution, caused a 2% loss of strength. For occasional decontamination, this is probably insignificant. Repeated use may cause a more significant loss of performance in the rope.

Use of stronger solutions is not recommended, and this was supported by the 14% strength loss when the samples were exposed to a 100% concentration. In both cases, the samples were immersed for 10 minutes, rinsed for 10 minutes and then tested 14 days later.

UPDATE At the 2013 International Technical Rescue Symposium, John McKenty, Director of the CMC Rescue School, presented results of testing a variety of contaminants on life safety rope. Included in this year's series of tests was a 10% bleach solution on polyester sheath/polyester core rope. The rope was left in the solution until dry, three times over a 40-day period, simulating a worst-case, where the rope was not thoroughly rinsed as part of the decontamination process. The test results showed a 7% loss of strength. CMC Rescue emphasizes the requirement to thoroughly rinse life safety rope of any fiber type as the final step in decontaminating the rope.

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