

## Cleaning and Disinfecting after Hurricane Florence

Widespread flooding has resulted in a lot of interest in what to do about water damage.

Professional training for water damage restoration usually entails training courses that are several days long and supervised work in the field to develop skills and knowledge. For home owners who want to better understand best practices related to water damage restoration, please consider the following resources:

- **How to clean and disinfect after a flood** – see the IICRC (Institute of Inspection, Cleaning, Restoration Certification) **S500 Water Damage Restoration standard** and **S520 Mold Remediation standard**.
- More information on **Water Damage Restoration Training** can be found at the following website: <http://www.iicrc.org/the-basics-water-damage-restoration-training-a-23.html>

Nearly all flood damage involves grossly unsanitary water. Flood water contains bacteria and other organic contamination, supports mold growth, and can contain hazardous chemicals. Once flood waters have receded, buildings that have been contaminated are generally remediated by taking the following steps:

1. **Dry out the building.** Water damaged belongings and saturated drywall and insulation must be removed so that the structure of the building can be dried. Wood studs, sill plates and other structural members should have a moisture level of less than 15%. If the environment is humid, use dehumidifiers and air movers (fans) to speed the drying process.
2. **Clean contaminated surfaces to remove organic and chemical contamination.** Use a cleaner that contains surfactant. Bleach is not recommended for several reasons:
  - a. If mold is present, bleach makes the mold disappear but *bleach does not kill mold*.
  - b. Bleach causes noxious fumes when it comes in contact with many other chemicals.

Mold must be removed because it contains mycotoxins, which make people sick. It is not enough to simply spray a disinfectant on mold because leaving the mold allows mycotoxin in the mold to continue to adversely affect building occupants. Dead mold also becomes a food source for microorganisms and can speed the spread of mold the next time moisture levels get high enough for mold to grow. Do it right by cleaning as soon as the moisture is under control.

3. **Kill pathogens on surfaces by applying an EPA registered disinfectant that is effective against both non-enveloped and enveloped viruses, tuberculosis (TB), and fungi.** Pathogens are germs, viruses and fungi that can make you sick. Some disinfectants that claim to be broad spectrum are not effective against non-enveloped viruses, such as norovirus, poliovirus, rotavirus and canine parvovirus. Disinfectants that are effective against HIV and Influenza A may not deliver enough protection because flood waters contain sewage and other gross contaminants that can harbor a wide range of human pathogens. Use a disinfectant that is EPA approved as effective against non-enveloped viruses and TB (*Mycobacterium bovis*) to get the highest level of protection against the range of pathogens found in flood waters. If the disinfectant does not kill TB (*Mycobacterium bovis*), it does not meet OSHA's bloodborne pathogen standard. Follow the label on the bottle and apply only enough to achieve the dwell time needed to disinfect. Sanitizing usually occurs in 30-60 seconds but sanitizing is not enough for professional remediation of flood water losses. When using a disinfectant, never mix with bleach and do not over apply – using more than enough is wasteful.

4. **Seal surfaces with a mold resistant coating to prevent the return of mold.** Surfaces in high humidity areas can benefit from a mold resistant coating. Wood structures can also be painted with a mold resistant coating if they are likely to get wet again. Before applying a mold resistant coating in an outdoor application, ensure that the product you plan to use is formulated for outdoor use. Note: most mold resistant coatings applications are indoors.

The following Sporicidin brand products are suitable for water loss restoration:

### Cleaners

- **Sporicidin Enzyme Cleaner Concentrate**, 1 quart concentrate, part number: **ENZ-3212**
  - 3 enzyme formulation breaks down protein, fats and starches in organic contamination to make cleaning more effective, quicker and easier.
  - Concentrated formulation. 1 quart bottle makes up to 16 gallons of cleaning solution.
  - Mix in 2 ounces per gallon of tap water. Use 4 ounces per gallon to loosen stubborn soil. Use 8 ounces per gallon to loosen blood and other bodily fluids. If the surface that is to be cleaned is compatible, use warm or hot water to accelerate the cleaning effect.
  - Spray or foam onto soiled area. Keep wet for 5 or 10 minutes, brush or wipe away contamination.
  - Loosens organic contamination such as pet stains, vomit, feces and sewage residue.
  - Enables removal of visible soil in preparation for application of an EPA registered disinfectant that meets OSHA's blood borne pathogen standard (like Sporicidin Disinfectant Solution).
  - Loosens pet stains and removes odors from carpets.
  - Gentle on surfaces.
  - Environmentally friendly. Certified by the US EPA as a *Safer Choice* product.
- **Sporicidin Mold and Mildew Stain Remover**, 1 gallon ready-to-use 7.5% hydrogen peroxide cleaner, part number: **MRC-101-1** (case of four 1 gallon bottles)
  - For professional use only. More than 2x stronger than drug store peroxide. Protect eyes and skin from exposure. Rinse eyes for 15 minutes with clean water if exposed.
  - Spray or foam onto soiled area. Brush, wipe or rinse away contamination.
  - Loosens organic contamination such as feces, vomit, blood, and body fluids.
  - Environmentally friendly. MRC-101 cleaning is powered by hydrogen peroxide, which breaks down to water and oxygen.

## Disinfectants

- **Sporicidin Disinfectant Solution**, 1 gallon ready-to-use, part number: **RE-1284F** (case of four 1 gallon bottles) or **PS-3212F** (case of 12 one quart bottles)
  - Hospital grade disinfectant for professional use. Ideal for cleaning flood affected structures and disinfecting contaminated hard, non-porous surfaces.
  - Effective against TB, non-enveloped & enveloped viruses, fungi, gram-positive & gram-negative bacteria.
  - Contains a fragrance. Not intended for use around chemically sensitive people.
  
- **Contec Citric Acid Disinfectant**, 1 gallon ready-to-use, part number: **CAD1284** (case of four 1 gallon bottles) or **CAD3212** (case of 12 one quart bottles)
  - Botanical, hospital grade disinfectant for professional use. Ideal for use when someone has chemical sensitivities. Excellent for cleaning flood affected structures and disinfecting contaminated hard, non-porous surfaces.
  - Effective against TB, non-enveloped & enveloped viruses, fungi, gram-positive & gram-negative bacteria. The botanical product that meets OSHA's bloodborne pathogen standard.
  - When used on food preparation surfaces, rinse with potable water after disinfection.

## Mold Resistant Coatings

- **White - Sporicidin Mold Resistant Coating**, 5 gallon pail, part number: **MRC-100-5**
  - White color makes it easy to see where it has been applied.
  - Can be tinted to be another color.
  - Apply with an airless sprayer, roller or brush.
  - Easy clean up with soap and warm water.
  - Provides a mold resistant surface of up to 600 square feet per gallon. Coverage rate may be less, depending on the texture of the surface and how much opacity is desired (how thick or thin the paint is spread)
  - Has a 20 year limited warranty when the coating is properly maintained.
  - For indoor applications.
  
- **Clear - Sporicidin Mold Resistant Coating**, 5 gallon pail, part number: **MRC-80-5**
  - Clear for application on decorative wood or any other surface where it is important to see the wood or surface material underneath the coating.
  - Apply with an airless sprayer, roller or brush.
  - Easy clean up with soap and warm water.
  - Provides a mold resistant surface of up to 600 square feet per gallon. Coverage rate may be less, depending on the texture of the surface and how much opacity is desired (how thick or thin the paint is spread)
  - Has a 20 year limited warranty when the coating is properly maintained.
  - For indoor applications.



**Sporicidin cleaning and disinfecting products can be purchased at the following locations:**

**Aramsco**

1000 Parliament Court  
Suite 500  
Durham, NC 27703  
(888) 941-6368  
Steve Beasley

**Aramsco - Interlink Supply**

616 Guilford College Road  
Suite F  
Greensboro, NC 27409  
(336) 299-2299  
David Blackwell

**Sun-Belt USA**

4211-C Atlantic Avenue  
Raleigh, NC 27604  
(919) 878-6511  
Steve Boyette

**American Air & Water**

12 Gibson Drive  
Hilton Head Island, SC 29926  
(843) 306-0070  
Laurie Davis

For more information on Sporicidin brand products, go to <http://www.sporicidin.com/>  
If you have technical questions about Sporicidin products or applications, email or call:

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615-207-6840

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864-699-8247