

Introduction

According to the IICRC (Institute of Inspection, Cleaning and Restoration Certification), which sets the standards for the cleaning industry and water damage restoration training, there are several different levels and classes involved in liquid destruction. From the IICRC's S-500 standards, **there are three categories describing the type of liquid involved.**

- **Category 1.** This is liquid from a clean and sanitary source, such as faucets, toilet tanks, drinking fountains, etc. But, category one can quickly degrade into category two.
- **Category 2.** This category of liquid used to be called grey water, and is described as having a level of contaminants that may cause illness or discomfort if ingested. Sources include dishwasher or washing machine overflows, flush from sink drains, and toilet overflow with some urine but not feces.
- **Category 3.** This is the worst classification and is grossly unsanitary. It could cause severe illness or death if ingested. It used to be called black water, and sources include sewer backup, flooding from rivers or streams, toilet overflow with feces, and stagnant liquid that has begun to support bacterial growth.

Next are the classes of destruction

- **Class 1.** The lowest and easiest to deal with, this has a slow evaporation rate. Only part of a room or area was affected, there is little or no wet carpet, and the moisture has only affected materials with a low permeance rate, such as plywood or concrete.
- **Class 2.** With a fast evaporation rate, this level affects an entire room, carpeting, or cushioning, the wetness has wicked up the walls at least 12", and there is moisture remaining in structural materials.
- **Class 3.** This class has the fastest evaporation rate, and ceilings, walls, insulation, carpet and sub-floors are all saturated. The liquid may have come from overhead.
- **Class 4.** This class is labeled as specialty drying situations, which means there has been enough liquid and time to saturate materials with very low permeance, such as hardwood, brick, or stone.

Category two and three water contains bacteria, viruses and fungi. Exposure to Gray water or Black water could result in Dermatitis, Gastroenteritis, Infections Hepatitis, Shigellosis, Legionnaires Disease, Tuberculosis, Salmonellosis, Hypersensitivity Pneumonitis, Histoplasmosis, Rhinitis, Conjunctivitis, Asthma, Typhoid Fever, or Cholera. To name just a few of the diseases that comes from sewage waters.

These diseases are passed from waste-to-person, from person-to-person, from person to object when someone gets a small amount of the organism on his or her hand and then puts that hand in or near his or her mouth, or touches food or food contact surfaces.

Thorough cleaning of indoor sewage spills is necessary to protect you and your business/operation from these harmful bacteria, viruses, and fungi. Clean up should begin as soon as possible to reduce the risk of exposure to sewage.

- Keep all unnecessary people out of the area until cleanup has been completed.
- Wear protective equipment; rubber boots, rubber gloves, long sleeve shirt, long pants (no shorts), safety goggles, half facemask.
- Protect other areas that you may walk through or move equipment, and debris through.
- Remove all furniture, loose rugs, appliances, and equipment if possible.
- Begin water extraction.
- If you have a black water situation (Category 3 water - contaminated water such as sewage, toilet leak or rising ground water), according to the industry standard IICRC S500, Discard all affected porous materials such as carpet pads, rubber backed carpets, books, ceiling tiles, saturated sheetrock, and carpeting.
- However, if you have Category 2 water (gray water such as washing machine waste water, shower runoff, etc.) you have to discard the pad, but you can clean the carpet and keep it. If you decide to keep the carpeting hire a licensed carpet cleaning company to steam clean and disinfect the carpet.
- Category 1 water (clean water - toilet supply line, fridge ice maker, etc.), and it hasn't been sitting for more than 24 to 48 hours, then you can extract the water and keep the carpet and pad. However, if the carpet has a moldy or mildew smell or you see mold, it should be considered a category two or three water cleanup.
- Upholstered furniture, loose rugs, drapery should be cleaned by a professional if salvageable. Chipboard/particleboard items will probably need to be disposed.
- All hard surfaces such as linoleum, concrete, wood molding, wood floors, metal furniture should be thoroughly cleaned with hot water and mild detergent, rinsed with clean water, and the rinsed again with a disinfectant. Let the items air dry. Increase air circulation to reduce odors and mold growth. The use of fans, dehumidifiers and heaters may speed up this process.
- Clean sinks, dishwashers, and other plumbing fixtures that have had sewage in them with detergent water, rinse with clean water, and rinse again with a disinfectant.
- Disinfect clean up mops, brooms and brushes.
- Wash your hands with warm water and soap for at least 15 seconds.
- Launder clothes in hot water and dry them on high heat.

Types of disinfectants and suggested strengths:

- Household Bleach one ounce to one gallon of water
- Ammonia six ounces to one gallon of water
- Quaternary Sanitizer two ounces to one gallon of water

WARNING! NEVER MIX BLEACH AND AMMONIA CLEANING PRODUCTS FOR ANY CLEANING JOB. AMMONIA AND BLEACH MIXED TOGETHER FORM A POISONOUS GAS.

Note: If mold is present on building materials (sheetrock, plaster, structural members, ceiling tiles, etc.) contact EH&S for abatement protocols.