
ENVIRONMENTAL Fact Sheet



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Bacterial Staining Of Water Use Fixtures

Description: Black/grey and/or red/pink deposits are sometimes noticed on moist surfaces of water use fixtures. This discoloration tends to follow the direction of the water flow in/on the surface of the fixture. In standing water, the growth frequently occurs at the surface/water interface. This discoloration easily wipes from the fixture surface and typically leaves no indication of the previous staining once cleaning is completed.

This condition is typically caused by an air borne bacteria that thrives in moist and otherwise favorable locations. The condition is often difficult to eradicate. These bacteria are generally of the “*serratia marcescens*” type of bacteria, although many other airborne bacteria can exist under these moist conditions.

Health Concern: These bacteria are generally not hazardous to a healthy person however there have been some cases of urinary track inflammation believe to have been caused by these bacteria.

Origin: The origin of these bacteria is airborne and **NOT** from the water in the water plumbing system. They may often occur in conditions where there is substantial dust or other debris in the air. This condition can occur often during or after periods of construction. A coliform bacteria test taken from a clean faucet will typically show no presence of coliform bacteria. These bacteria survive at these locations because the frequent use of water or leaky fixtures provides a favorable place to grow.

If one wants to specifically identify the type of these organisms, tests can be processed. The typical cost would be in the range of approximately \$100. The collection procedure would be to wipe the surface where growth is seen, place in a moist jar, keep cool and deliver to a specialty laboratory.

Corrective Action: The best approach to ridding an area of these bacteria is to keep the area clean and dry. Multiple applications of a chlorine solution (bleach) may also be helpful, but since this is an air borne bacteria it may continue to reoccur. In some cases this may mean wiping with a chlorine solution or flushing a chlorine solution over or through the point of origin. It is typically difficult to kill every last one of this organisms. The need for repeated disinfection attempts is to be expected. These organisms will typically reoccur within two or three days.

If the disinfection location is within a faucet, apply a water chlorine solution to the inside of these shapes using a squirt type device or possible toy water gun. If the discoloration is in the toilet bowl, place a chlorine tablet in the water storage tank to give continuing coverage to the bowl, drain ring and standing water in the tank. If occurring in a shower head, immerse the shower head in a bucket of chlorine solution for a few minutes.

FOR MORE INFORMATION

For additional information, please contact the Drinking Water and Groundwater Bureau at (603) 271-2513 or dwgbinfo@des.nh.gov or visit www.des.nh.gov, click on the A to Z List and choose Drinking Water and Groundwater Bureau. All of the bureau's fact sheets are on-line at <http://des.nh.gov/organization/commissioner/pip/factsheets/dwgb/index.htm>.

Note: This fact sheet is accurate as of September 2009. Statutory or regulatory changes or the availability of additional information after this date may render this information inaccurate or incomplete.