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NF93-134 Water Nuisances: Alternatives to Cleaning Deposits on Household Surfaces

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The alternatives for cleaning deposits caused by water should be evaluated in terms of the specific item and material. Use and care booklets for the surface as well as cleaning product labels need to be carefully read. Damage to the surfaces are possible, so always test cleaning processes and products in an inconspicuous area, and follow manufacturer's recommendations. Evaluate the temporary solutions and compare the advantages and disadvantages using other more permanent solutions such as water treatment equipment.

**Vitreous China/Porcelain Enamel**

**Problems:**
Stains caused by rust, other minerals-hard water deposits. Dull, discolored appearance.

**Temporary Solutions and Prevention:**

- Treat iron stains with a rust remover (usually containing oxalic acid). Weaker acids include vinegar and lemon juice, or citric acid. Check the label — the product may not be safe for colored sinks and tubs.
- Specialty products are available to help remove hard water mineral stains (limescale) and rust.
- Mild abrasives can be used on stains. Ample water will somewhat protect the surface from the abrasive — however scratching of the surface is possible (See NF93-133, Water Nuisances: Deposits on Household Surfaces).
- Commercial acidic cleaners can be used on most toilet bowls, but check the manufacturer's recommendations.
- Repair leaking and dripping faucets to avoid stains.
- Rinse sinks, tubs and shower stalls after use; wipe or squeegee dry.
- A solution of non-precipitating water conditioner (e.g. Calgon*) in a spray bottle can be used for quick cleaning of tubs and sinks to prevent buildup. A paste on a damp sponge can be used to
dissolve soap film and mild stains and film around faucets. Calgon contains sodium tripolyphosphate, a sequestering agent. Other nonprecipitating water conditioners can be used.

- A tub, tile and sink cleaner, all-purpose cleaner or a nonabrasive cleaner can be used for on-going cleaning. Rinse and wipe clean.

Ceramic Tile

Problems:
Hard water deposits, dull discolored appearance.

General On-going Cleaning:

- A solution of a non-precipitating water conditioner in a spray bottle can be used for quick clean up to prevent buildup.
- Apply an all-purpose cleaner, aerosol tile cleaner, or a vinegar water solution. Rinse with clean water and buff tiles with dry cloth to prevent water spots.

Temporary Solutions and Prevention:

- Avoid strong acids or hard abrasives as they may etch or scratch the tiles.
- Mild abrasives can be used for stains on unglazed tiles (test first).
- Commercial tile and bathroom cleaners are available for cleaning hard water deposits.

Stainless Steel

Problems:
Stains caused by hard water deposits, water spots.

General Cleaning:
Clean with a non-abrasive, all-purpose cleaner or liquid, dishwashing detergent and water. Remove stains with a paste of baking soda or borax and water. Rinse and dry with soft clean cloth.

Temporary Solutions and Prevention:

- Towel dry to avoid water spots. Stainless steel typically shows water spots. Evaluate whether or not this is a real concern.
- Avoid strong alkali cleaners such as ammonia, tri-sodium phosphate, or washing soda as they will darken steel.
- Avoid abrasive cleaners.
- Mild acid cleaners, such as vinegar or lemon juice can be used.
- Commercial cleaners for stainless steel are available. Some cleaners are formulated to remove water deposits and to leave a protective film.

Fiberglass/Plastics

Problems:
Hard water deposits, rust stains, and other discolorations.

General Cleaning:
Use a non-abrasive cleaner such as an all-purpose cleaner; liquid cleanser; bathroom cleaner; tub, tile and sink cleaner; baking soda or borax. Rub gently and rinse or wipe clean. Read the label to determine if the product is safe for fiberglass or other plastics. Specialty products for cleaning fiberglass or other plastics are available.

Temporary Solutions and Prevention:

- Clean frequently to avoid staining. Abrasive cleaners and pads may scratch, discolor or dull a fiberglass fixture.
- Mild abrasive cleansers can be used on stains, but even these may cause damage over a period of time with repeated use. Wet surface. Make a thin paste with cleanser and water. Let paste set on stain for up to 10 minutes. Wipe gently and rinse. Avoid abrading the surface. Once scratched, it is difficult to clean and to restore.
- An acid based bathroom cleaner may be used to help remove hard water deposits and rust scale. Do not mix with a product containing bleach. Check label for safe use on fiberglass or plastics.
- Vinegar (1 part vinegar to 4 parts water) can be used as a spray or wipe off cleaner for hard water deposits.
- Chlorine bleach mixed equally with hot water can be used for stains. Let set on stain for up to 10 minutes before rinsing.
- A solution of a non-precipitating water conditioner in a spray bottle can be used to prevent buildup by spraying after each use. Use a cloth or squeegee to dry the surface.

The glossy surface of cultured marble and fiberglass has a very thin layer of a substance sometimes referred to as Gel-Coat which is scratched easily.

Chrome Fixtures

Problems:
Hard water deposits, water spots, and other discolorations.

General Cleaning:
Clean with a damp sponge using a tub, tile and sink cleaner, all-purpose cleaner or glass cleaner for ongoing cleaning. Rinse and buff dry with clean, soft cloth. Check labels to see if the product is safe to use on chrome.

Temporary Solutions and Prevention:

- Rubbing alcohol or a paste of rubbing alcohol and baking soda can be used to remove some stains.
- Buff with dry, soft cloth to prevent water spots.
- Avoid acids or acid-based cleaners.
- Commercial silver polish can be used to restore shine, although some brands may have a mild abrasive.
- A solution of a nonprecipitating water conditioner in a spray bottle can be used to prevent buildup.

Brass/Gold Fixtures/Faucets

Problems:
Water deposits, scum, water spots, general cleaning.

General Cleaning:
Commercial cleaners (non-abrasive) are made for cleaning chrome, gold and brass plated fixtures. Some products are available that leave a protective coating or wax that makes cleanup easier. These cleaners are marked as safe for gold and brass plated fixtures. Thin platings may wear away with use and from abrading the surface with an abrasive cleaner.

Temporary Solutions and Prevention:

- Clean with a liquid all-purpose cleaner; tub, tile and sink cleaner, or glass cleaner if safe for surface. Rub gently; rinse, or wipe clean.
- Dab dry the faucet whenever water is splashed on it. Water deposits will not form if water is not allowed to evaporate on the surface.

Glass (Shower Doors)

Problems:
Hard water mineral deposits; soap scum.

General Cleaning:

- Use an all-purpose cleaner or a tub, tile and sink cleaner according to package directions.
- See also window glass.

Glass (Window)

Problems:
Hard water mineral deposits on exterior windows.

Temporary Solution and Prevention:

- Clean with a soft abrasive cleaner.
- Use a weak acid solution — vinegar or acetic acid. If these fail to work try a tub or tile cleaner that contains an acid for removing scum — mineral deposits (e.g. phosphoric acid). Follow safety precautions and avoid extensive contact of solution with surrounding surface.
- Adjust sprinkling systems so that they do not spray hard water onto windows when watering the lawn.

Glass (Glassware)

Problems:
Films, iridescent look, hard water deposits.

Temporary Solutions and Prevention:

- Vinegar removes hard water deposits from glassware. Soak glass 15 minutes in undiluted white vinegar. Rinse and dry.
- Use commercial products available for glassware to remove hard water deposits.
- Use a rinse agent in the dishwasher.
- Hard water and not enough dishwasher detergent may leave hard water minerals on surfaces of glassware and interiors. Increase the amount of detergent according to degree of water hardness recommended in use and care manuals.
To remove hard water film, wash glassware in dishwasher using twice as much detergent as normally recommended. If filming is heavy, repeat procedure.

Etching or iridescence of glassware is often confused with hard water film. Certain types of glassware will etch in the dishwasher. The etching is usually a result of a combination of automatic dishwashing detergent, soft water, high water temperature, insufficient rinsing, overloading, and the heat of drying. There is no way to remove the film appearance caused by etching. Possible prevention includes use of water not higher than 140°F, a minimum amount of detergent, follow use and care guide for loading, use correct water fill, use a rinse agent, use a cycle without heat, and avoid manually prerinsing glasses.

Dishwasher Interiors

Problem:
Hard water film on interior of dishwasher; rust stains from iron, stains from manganese (dark purple or black deposit).

Temporary Solutions and Prevention:

- Commercial products to remove lime or hard water films are available in grocery stores; read label to be sure the product can be used in the dishwasher and consult use and care booklet for the dishwasher.
- For hard water films, start dishwasher on Rinse and Hold Cycle — during fill, open door and add 1/2 cup white vinegar. Allow dishwasher to complete cycle. Do not use detergent. Follow with regular detergent wash. Some manufacturers warn against use of cleaning products such as baking soda, borax, vinegar or citric acid as they suggest that they may damage the dishwasher. Consult use and care manual.
- Make sure detergent cup dispenser is tight and operating correctly on dishwasher.
- Use a commercial rinse agent in dishwashers.
- Increase detergent according to amount recommended in use and care manual for hard water areas in use and care manual.
- Use a special automatic dishwashing aid designed for water deposits. These products are usually powders in high phosphate.
- Use a rust remover for rust deposits if use and care manual indicates it is safe to do so.

*Mention of particular products are intended as examples only and not intended as an endorsement of the product. Any omission of a product is not intended as a criticism of that product.

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