



Natural Stone Stain Removal Using A Poultice

1. First step, identify the type of stone you are working with.

There are two general kinds of stone, calcareous (marble, limestone, travertine) or siliceous (granite, sandstone, slate). Siliceous stones are made mostly of quartz-like particles called silica. Calcareous stones are made from fossilized biological material. Calcareous stones are much more sensitive to acidic cleaning solutions so you may be limited to alkaline cleaning solutions and dry solvents only for your poultice. With siliceous stones, you can also use acidic cleaning solutions in addition to alkaline and dry solvents.

If you're not sure, an acid test will help determine which category your stone falls into. Apply a few drops of a 10% solution of hydrochloric acid (muriatic acid) onto the stone in an inconspicuous area away from any grout lines. If you get a fizzy or bubbly reaction, this means the stone is calcareous. Little or no reaction means it is siliceous. If the stone has been previously sealed, the sealer may interfere with the test. If this is the case, if possible, scrape away a little piece of the stone surface in an inconspicuous place and apply the acid to the newly exposed, unsealed surface. If you can't identify your stone do not use acids to be on the safe side.

2. Prepare the Surface

Scrape off any surface residue or debris with a razor blade. For oil stains, clean the surface with acetone or lacquer thinner and a white terry towel. Pre-wet the stained area with distilled water. Pre-wetting fills the pores of the stone with water which will accelerate the stain removal.

3. Prepare the Poultice

Diatomaceous Earth is the preferred absorbent powder for making poultices however, Hydrated Magnesium Silicate (talcum powder) is also a good absorbent material. There are an unlimited number of cleaning solutions you can use in your poultice, here are a few suggestions to get you started:

- Oil-Based (organic) and Protein-Based Stains. An alkaline solution such as household ammonia mixed with a few drops of clear dishwashing liquid or better yet, an alkaline tile & grout cleaner/degreaser is effective on oil-based stains from organic sources like cooking oils, grease, and gravy, etc. and protein-based stains such as vomit, blood, and many other food products.
- Oil-Based Stains (petroleum). Acetone, lacquer thinner, and mineral spirits are good solvent solutions for removing petroleum oil-based stains.
- Tannin-Based Stains. An acidic Grout Cleaner is a good solution for tannin-based stains such as wine, coffee, tea, mustard, and urine. Remember, do not use acids on calcareous stones, use a neutral pH cleaner specifically for natural stone.
- Hydrogen Peroxide (40 vol) is a good solution for difficult red wine stains or other dyes or pigments.

In a stainless-steel bowl, mix your cleaning solution of choice (depending on the characteristics of the stain you are trying to remove) with a white absorbent material (diatomaceous earth or talcum powder) to form a paste about the consistency of peanut butter.

4. Apply the Poultice

Spread the poultice over the stain, an inch or so beyond the stained area, to an approximate thickness of ¼ inch to ½ inch with a wood tongue depressor or plastic spatula. Cover with plastic wrap and tape down the edges with masking tape to seal. Wait 24 hours to allow time for the poultice chemical to absorb into the stone then poke a few pin holes in the plastic to allow for the start of slow evaporation. Leave it to dry undisturbed for another 24 hours to allow the poultice to begin drying. After 24 hours, remove the plastic and allow the poultice to dry completely likely another 24 hours. The cleaning solution and absorbent powder compound will draw the stain out of the stone and into the poultice material through capillary action as it dries. Important - allow the poultice time to dry completely.

5. Remove the Poultice

When dry, remove the poultice from the stain. Rinse with distilled water and buff dry with a white terry towel or hair dryer. Allow the stone to dry completely then assess your result. If the stain is less visible, but not completely removed, apply the poultice again. It can take multiple applications for difficult stains. If the stain shows no signs of improvement, consider using an alternate cleaning solution and try again. When the stain removal is complete, buff the area with a piece of cheese cloth if the surface lost a bit of its shine in the poultice area, or call in a professional stone refinisher to re-polish the stone.

Please use appropriate precautions when handling chemicals. Read the material safety data sheets for each chemical before use. Wear chemical resistant gloves and splash goggles, keep windows open for adequate ventilation and wear a respirator if recommended. Avoid exposing solvent fumes to pilot lights or other open flames. If you are not comfortable with these procedures, call a professional for help.

Stain Prevention Tips

- In the bathroom, store bottles of hand cleaners, cosmetics, and other personal products on a non-metallic tray with feet or felt or rubber pads to elevate it off the counter, not directly on the counter.
- In the kitchen, prepare food on a cutting board, store bottles of cooking oils etc on a tray and open wine bottles on a coaster or trivet.
- Clean and dry spills immediately and use only neutral cleaners designed specifically for natural stone.
- When the counter is new or after professional cleaning or refinishing, seal the stone with a penetrating or impregnating sealer. Not all stones require sealing but if yours does, it should be sealed correctly with as many coats as is required to provide adequate stain protection.
- All stone sealers are not created equally. Always insist on a premium stone impregnator applied by a trained professional. Sealers do not protect against acid etching.
- If your stone is calcareous, avoid contact with acids such as citrus juice, wine, vinegar, tomato sauce, and acid based cleaners. Acid sensitive calcareous stones are not the best choice for kitchen counters.

That's it! If you do need a little help and you're fortunate enough to live in the Vancouver area, we're always happy to assist. Visit our website for more information www.nuvoclean.com

Resources:

- Diatomaceous Earth is available at Pool and Hot Tub Supply stores.
- Hydrogen Peroxide (40 vol) is available at Beauty Supply stores.
- Alkaline Tile Cleaners and Acidic Grout Cleaners are both available at Janitor's Supply Stores.
- Neutral pH Stone Cleaners are sold at most retail tile stores that sell natural stone tiles.
- Acetone, Laquer Thinner, and Mineral Spirits are all available at Home Improvement and Hardware Stores.