



Aquatic Consulting Services

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Pool Tip #20: Acid Washing

If it's necessary to acid wash your swimming pool, make sure you do so in a proper and safe manner. Incorrectly acid washing a pool can be extremely dangerous to individuals performing the task, can be damaging to the pool surface, and harmful to the environment.

Before you start, read the Material Safety Data Sheets (MSDS) for all the chemicals you will use during the procedure. Purchase and wear the personal protective gear recommended in the MSDS sheets. The gear will include protective clothing that covers all areas of exposed skin, a full face shield or goggles, half mask respirator with fresh acid cartridges, rubber boots and gloves.

Visually inspect the pool, looking for discoloration, mineral staining, ghosting, plaster etching or mottling, chipped tile, broken steps, cracks, scaling, and other problems which should be corrected while the pool is empty.

Drain the pool to the sanitary sewer or other approved location, then closely inspect the entire surface of the empty pool. Tap the walls and pool bottom looking for loose plaster or hollow spots. Sand off any excessive calcium build-up. Make sure the pool is dry and you have taken all appropriate safety precautions to avoid electrocution if you're working with an electrical sander.

Rinse down the whole pool with water from a garden hose using a high pressure nozzle. Mix water and tri sodium phosphate (TSP) in a plastic sprinkling can. Add about 1/4 cup of tile soap to the mixture. Pour the TSP mixture from the deck down, a small area at a time. Scrub with an industrial pool deck brush to remove the oil residue and scum that has built up over time. After completing the pool walls, scrub the pool bottom in a similar manner. Be careful not to slip and fall. Rinse the entire pool with fresh water again.

Make sure that the area you're working in is extremely well ventilated. Acid fumes are heavier than air and will have a tendency to collect in the bottom of the pool. Don't work alone. Both you and your partner should be knowledgeable in first aid procedures for acid burns, and respiratory emergencies in case one of you is overcome by fumes.

Prepare a mild acid and water solution. Add acid at a ratio of no more than 1 part muriatic acid to 4 parts of water. Remember to add the acid to the water already in the bucket, not water to the acid. Using a long handled brush, scrub a small area of the pool at a time until the surface feels like fine sand paper. Rinse frequently. Keep the rinse water on at all times, and move the sump pump around to avoid leaving an impression known as a pump "foot print" on the pool bottom. Neutralize the acid, and dispose of the neutralized solution in an approved manner.

After completing the acid wash, rinse the pool several times with fresh water. Pour sodium carbonate (soda ash) down the main drains to help neutralize any acid that may have gotten into the drains and recirculation lines. Neutralize the acid on the pool shell, by again scrubbing the entire surface with a mixture of TSP and water, as previously described. Rinse the surface one final time with fresh water.