



SONOMA CAST STONE

CONCRETE INNOVATIONS



Care and Maintenance for your Concrete Tank

New Tank Preparation (If not performed by Sonoma Cast Stone)

Tartaric Acid-Etch: Wash repeatedly and scrub if desired with a 15-20% (by weight) tartaric acid/water solution (use neutral or distilled room temperature water). Apply with low pressure CIP Rotating “Spray Ball” or hand-pump “Hudson sprayers”. If scrubbing is desired, use soft bristle nylon brushes. Make sure the entire interior surface of the tank is uniformly treated. Tank walls should be exposed to the solution for 20 to 30 minutes. After Acid-etch is completed, rinse with water repeatedly until rinse water is clear. After rinsing, test the pH of the tank walls with litmus pH test strips and the pH should be between 5 and 6. If desired pH is not reached, rinse with 5% tartaric acid/water solution repeatedly until desired pH is reached.

Sanitation Process In-between Fermentation or Storage Cycles

Step 1

Anti-Bacterial Rinse (sanitation): Rinse with a 3 to 8% by weight solution of PAA (peroxyacetic acid). Apply with a low-pressure CIP Rotating “Spray Ball” positioned as close as possible to the center of the tank. **Important: pH of solution should be 8.0 to 8.5 @ 34 to 40 degrees F.** Scrub, if desired, with soft bristle nylon brush and then rinse with water.

Other sanitizers of choice include in the following;

Chemical Name	Brand Name(s)	Concentration Levels
Sodium percarbonate	Proxyclean or Proxycarb	3.5 to 14 grams per gal
	One Step-No Rinse Cleaner	14 grams per gal
	PBW (Powdered Brewers Wash)	21 to 56 grams per gal
	Destainex-LF (Low foam)	19 to 57 grams per gal
Caustic Soda (Sodium Hydroxide)		in a 3 to 5% by weight water solution
Sodium Bicarbonate (Baking soda)		13 grams per gallon

Important: sanitizers come in concentrate form, read instructions carefully for proper dilution ratios and solution temperatures. If caustic sanitizer is used, rinse thoroughly with water before the pH rinse in the next step.

If complete removal of tartrate crystal formation is desired, Step 1 may need to be repeated. If tartrate formation is heavy, Caustic Soda is usually the most effective for removal and a stronger solution can be employed, but do not exceed 7% by weight in water solution. Rinse thoroughly with water to bring the pH of the tank walls down before the pH rinse in the following step.



IMPORTANT

Do NOT fill and soak tank with tartaric acid/water solution for more than 2 hours.

Step 2

pH Rinse: Rinse with 5% (by weight) tartaric acid/water solution as needed to achieve the proper pH. The pH of the tank walls should be between 5 and 6 before filling with wine.

Tank Exterior

To maintain the beautiful outside appearance of your tank...

Tartaric acid and wine will etch and stain the outside of the tank. While using tartaric acid and during pump-overs, protect the outside of the tank by wrapping it with plastic. Seal the plastic tightly to the top of the tank and any seams with duct tape. Seal thoroughly so drips or spills of acid will not run down underneath the plastic. If using a spray ball or other cleaning device, be careful not to spill tartaric acid on the outside of the tank while lowering cleaning device or applicator into the tank.

If acid is spilled on the tank you should rinse immediately with plenty of water. If wine overflows, spills or splashes on the outside of the tank, immediately spray with water to avoid staining/etching of the tank's outer surface.

If you would like Sonoma Cast Stone to perform a cleaning service, please call for a quotation.

Tank Maintenance Advice and Tips

- Do not use a pressure washer or aggressive abrasives to clean the tank.
- Avoid 'shocking' the concrete by applying hot water to a cold tank or cold water to a hot tank. Concrete will withstand extreme temperatures, if gradually applied. When filling or sanitizing the tank, the temperature between the tank and the wine or sanitizer should not exceed 15 degrees.
- Maximum temperature of sanitation solution should not exceed 120°F (48.9°C) and maximum exposed time at this temperature should not exceed 20 minutes.
- Glycol coolant temperatures should not go below 33°F (0.6°C) or above 105°F (40.6°C) to raise or lower tank temperature.
- Maximum glycol working pressure is 50 psi (344 kPa).
- The difference between internal temperature (wine temperature) and glycol temperatures should never exceed 30 degrees.
- Inspect all seals every year and replace them if necessary.
- Do not over tighten threaded fittings.
- To ensure a tight seal, always make sure to position covers on the centerline of the seal area. Tighten the handles (or wheel) crosswise to ensure a fully tight seal, but with no visible deformation of the cover.
- When tank is empty, it is important to allow ventilation to prevent mold production. Leave access doors open! Fans can be used to optimize air circulation.



Sonoma Cast Stone Corporation
133 Copeland Street Petaluma, CA
Phone 707-283-1888
or toll free 877-283-2400
Fax 707-283-1899
www.sonomastone.com