

Citric Acid & Sulfite Barrel Preparation

Caution: When storing an unused barrel with any solution other than wine, there is the potential for loss of the very qualities that one buys a barrel for. Consideration should be given to employing this method over a sulfur wick solution whereby burning a wick inside the barrel periodically also offers preservative effects, but does not prevent shrinkage.

For barrels that have held 4-5+ batches of wine and that are not going to be filled with wine, a holding solution is necessary. By using a combination of sulfite and citric acid, an internal environment will be fostered that supports sterility and barrel freshness.

To store Oak barrels using a holding solution, use 2g of Potassium Metabisulfite* and 1g of citric acid for every liter of barrel volume. The chart below offers some convenient conversions.

Potassium Metabisulfite and Citric Acid additions by Common Volume	Potassium Metabisulfite (in grams)	Citric Acid (in grams)
5 gallon (~19 liters)	38 grams	19 grams
10 gallon (~ 38 liters)	76 grams	38 grams
12 gallon (~45 liters)	90 grams	45 grams
25 gallon (~95 liters)	190 grams	95 grams
30 gallon (~114 liters)	228 grams	114 grams
50 gallon (~189 liters)	378 grams	189 grams
55 gallon (~208 liters)	416 grams	208 grams
60 gallon (~227 liters)	454 grams	227 grams

* Sodium Metabisulfite can be used in-place of the Potassium Metabisulfite

To prepare the solution, first fill the barrel two-thirds with cool water. Next, prepare the holding solution by dissolving the sulfite and citric acid in warm water in a small glass container. Add the sulfite-citric solution to the barrel, top it up with cool water and bung it for storage.

For long term storage, it is important to keep the barrel topped-up by checking on a regular (monthly) basis and adding additional holding solution as necessary. Keep the solution fresh by changing it out every 3 months.

If the intent is to sanitize for immediate wine storage, proceed as documented above and allow the barrel to stand with holding solution for at least 48 hours.

Prior to adding wine to the barrel, the barrel should be rinsed several times and allowed to drain well. As the first sentence of this article suggests, the use of the holding solution is only an option for barrels that have had 4-5+ batches of wine in them. For new barrels, use sulfur strips or a sulfur candle to produce sulfur dioxide gas. Doing so will help prevent any bacteria or mold from forming.

For more information, please contact us at 877.812.1137 or email support@juicegrape.com. Thank you.