Presque Isle Wine Cellars
9440 West Main Road (RT 20)
North East, Pa 16428
814-725-1314
www.piwine.com

STANDARDIZING SODIUM HYDROXIDE with POTASSIUM ACID PHTHALATE

Directions:
Sodium Hydroxide (NaOH) will lose strength through age and exposure to carbon dioxide in the atmosphere. By testing its strength against a standard such as Potassium Acid Phthalate (KaPH) you can either adjust the calculated total acidity (TA) as shown below, or decide to get a fresh solution of NaOH. Standardized solutions of hydrochloric acid may also be used for this purpose.

Recalibration procedure: Pipette 5 milliliters (5 mL) of the N/10 KaPH into a water glass or flask. Add about 5 drops of phenolphthalein to the sample. Titrate with the N/10 NaOH until the end is reached, which is the first pink blush that persists for at least 20 seconds after stirring or mixing the sample. Make note of how much NaOH was used. (Note that if exactly 5 mL of NaOH was used then it is still at is stated strength: proceed with a normal acid test procedure).

New normality calibration: If more or less than 5 mL of NaOH was used then figure the new normality as follows: New normality of NaOH is equal to the number of mL's of KaPH (5 mL) times it's own normality (0.1) divided by the number of mL's of NaOH used in the paragraph above.

Final procedure: Find the acidity level of the wine sample as you normally would thinking the NaOH is at it's proper strength, then multiply that times the newly calculated normality of NaOH divided by 0.1

EXAMPLE: Assume it took 5.3 mL of NaOH to reach the end point against the KaPH. The process would be 5 times 0.1 divided by 5.3 to equal the new normality of NaOH of 0.094 Now Assume an acid of 0.6 was gotten before the re-calibration. Multiply 0.6 times 0.094 divided by 0.1 to equal 0.564 This would be the correct TA for that wine.