



## GRAIN STRENGTH

### VINEGAR

Converts the titratable acidity expressed as tartaric acid, the main organic acid in wine, to acetic acid, the main organic acid in vinegar.

### Determine the titratable acidity as follows:

Pipet 2 mL of vinegar into a 250-mL Erlenmeyer flask. Add approximately 120 mL of boiled, cooled, pH-adjusted DI water and a few drops of phenolphthalein. (Adjust pH of water by adding a few drops of phenolphthalein and 0.1 N NaOH until water is a very slight pink color.) Titrate with 0.1 N NaOH to a pink endpoint (pH 8.2). [See 1990 AOAC Volume Two, Section 930.35 J (page 1008)].

### Calculations

$$\text{TA (as g/100mL acetic acid)} = \frac{60 \text{ g/mole} \times 0.1 \text{ N NaOH} \times \text{mL NaOH used} \times \text{L/1000mL}}{\text{mL of sample used}}$$

$$\text{which reduces to: TA (g/100mL acetic acid)} = \frac{0.6 \times (\text{mL NaOH used})}{\text{mL of sample}}$$

The conversion for grain strength from titratable acidity expressed as acetic is:

$$\text{Grain Strength} = \text{TA (g/100mL acetic acid)} \times 10$$