Gusmer Enterprises, Inc.®

LAB PROCEDURE

Color (Wine, Juice and Concentrate)

EQUIPMENT REQUIRED

Spectrophotometer 0.45 membrane

PROCEDURE: FOR WHITE AND RED WINE (FILTER WINE THROUGH 0.45 MILLIPORE MEMBRANE)

- 1. Turn spectrophotometer on, allow 20 minutes to warm up before standardizing.
- 2. Place cuvette filled with DI water in spectrophotometer, be sure cuvette is dry and free of smudges.
- 3. Set wavelength dial at appropriate setting (White wine at 420 abs. and Red wine at 520 abs.)
- 4. For DI water, adjust read to 0.000 abs.
- 5. Place filtered wine sample into cuvette, close top of sample compartment, record reading; again be sure cuvette is dry and free of smudges.
- 6. Spectrophotometer must be standardized against DI water at each wavelength.

PROCEDURE: FOR WHITE CONCENTRATE

- 1. Dilute to 14 Brix with distilled water.
- 2. Membrane filter through 0.45 Millipore membrane.
- 3. Read at 430 nm with 1.00 cm cell following usual procedure.

EQUIPMENT REQUIRED

Spectrophotometer 0.45 or 1.2 membrane 100 ml volumetric flask Small weigh boats

Reagents: 3.2 pH buffer (MacIlavaine's standard buffer)

PROCEDURE: FOR RED AND PINK CONCENTRATE

- 1. Accurately weigh 1 g of concentrate in a small weigh boat.
- 2. Make dilution by transferring sample to a 100 ml volumetric flask. Rinse weigh boat with 3.2 buffer solution to ensure a complete transfer of sample.
- 3. Bring to volume with 3.2 buffer solution.
- 4. Filter diluted sample through 0.45 or 1.2 membrane filter. Filter paper absorbs color, therefore it is necessary to discard the first few ml of filtrate.
- 5. Transfer filtrate to 1 cm cuvette and read absorbance at 520 nm and 420 nm. Use 3.2 buffer solution to zero the spectrophotometer.

CALCULATION:

520 reading x 2000 = Color 520 / 420 = Ratio