OIV-MA-AS311-04 Stabilization of musts to detect the addition of sucrose

1. Principle of the method

The sample is brought to pH 7 with a sodium hydroxide solution and an equal volume of acetone is added.

The acetone is removed by distillation prior to determination of sucrose by TLC (thin-layer chromatography) and HPLC (high-performance liquid chromatography) (see *Sucrose* Chapter).

2. Apparatus

Distillation apparatus, with a 100 mL round distillation flask.

3. Reagents

3.1. Sodium hydroxide solution, 20% (*m/v*)

3.2. Acetone (propanone).

4. Method

4.1. Stabilizing the samples

20 mL of must is placed in a 100 mL strong-walled flask and brought to pH 7 with the 20% sodium hydroxide solution (*m/V*) (six to twelve drops). 20 mL of acetone are added. Stopper and store at low temperature.

WARNING: ACETONE HAS HIGH VAPOUR PRESSURE AND IS HIGHLY INFLAMMABLE.

4.2. Preparing the sample to determine sucrose by TLC or HPLC.

Place the contents of the flask in the 100 mL round flask of the distillation apparatus. Distil and collect approximately 20 mL of distillate, which is discarded. Add 20 mL of water to the contents of the distilling flask and distil again, collecting about 25 mL of distillate, which is discarded.

Transfer the contents of the distillation flask to a graduated 20 mL volumetric flask and make up to the mark with the rinsing water from the round flask. Filter. Analyze the filtrate and (if detected) measure the sucrose using TLC or HPLC.

Bibliography

- TERCERO C., *F.V., O.I.V.,* 1972, No. 420 and 421.