OIV-MA-AS315-02A Ethyl acetate

Type IV method

1. Principle of the method

Ethyl acetate is determined by gas chromatography on wine distillate using an internal standard.

2. Method

1. Apparatus (see chapter *Volatile Acidity*).
2. Procedure

Prepare an internal standard solution of 4-methyl-2-pentanol, 1 g/L, in ethanol solution, 10% (*v/v*).

Prepare the sample solution to be determined by adding 5 mL of this internal standard solution to 50 mL of wine distillate obtained as indicated in the chapter on *Alcoholic Strength*.

Prepare a reference solution of ethyl acetate, 50 mg/L, in ethanol, 10% (*v/v*). Add 5 mL of the internal standard to 50 mL of this solution.

Analyze 2 µL of the sample solution and the reference solution using gas chromatography.

Oven temperature is 90°C and the carrier gas flow rate is 25 mL per minute.

2.3. *Calculation*

S = the peak area of ethyl acetate in the reference solution.

S_x = the peak area of the ethyl acetate in the sample solution.

I = the peak area of the internal standard in the sample solution.

I = the peak area of the internal standard in the reference solution.

The concentration of ethyl acetate, expressed in milligrams per liter, is given by:

$$50 \times \frac{I}{i} \times \frac{S_x}{S}$$