

**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:

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