

Commission Regulation (EEC) No 000/90 of 17 September 1990
determining Community methods for the analysis of wines (repealed)

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Changes to legislation: There are currently no known outstanding effects for the
Commission Regulation (EEC) No 000/90 (repealed). (See end of Document for details)

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TABLE T Temperature corrections c to the density of dry wines and...

TABLE T Temperature corrections c to the density of natural musts and...

TABLE T Temperature corrections c to the density of wines of 13 %...

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Changes to legislation: There are currently no known outstanding effects for the
Commission Regulation (EEC) No 000/90 (repealed). (See end of Document for details)

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TABLE INTERNATIONAL ALCOHOLIC STRENGTH AT 20 °C

TABLE INTERNATIONAL ALCOHOLIC STRENGTH AT 20 °C

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-
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-
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 - 2.3.
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- 3. APPARATUS
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- 4. PREPARATION OF THE SAMPLE
- 5. PROCEDURE
- 6. EXPRESSION OF RESULTS
 - 6.1. Method of calculation
 - 6.2. Repeatability (r)
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- 1. PRINCIPLE OF THE METHOD
 - 1.2. Usual method
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	2.	REAGENTS
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		2.2.
		2.3.
		2.4.
	3.	APPARATUS
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	4.	PREPARATION OF THE SAMPLE
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	6.	EXPRESSION OF RESULTS
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		3.
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 - 8.2. Principle
 - 8.3. Reagents
 - 8.4. Apparatus
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Appendix A

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Appendix B

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 - 4.1. Preparation of ion exchange resin
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 - 4.3. Separation of DL-malic acid
 - 4.4. Determination of malic acid
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 - 1.2. Determination by gas chromatography
 - 1.3. Identification of traces by thin-layer chromatography
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 - 3.3.1. Preparation of sample to be analysed
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 - 1.1. Reference method (fluorimetry)
 - 1.2. Usual method (colorimetry)
 - 2. REFERENCE METHOD (fluorimetric method)
 - 2.1. Reagents
 - 2.1.1.
 - 2.1.2.
 - 2.1.3.
 - 2.1.4.

Changes to legislation: There are currently no known outstanding effects for the
Commission Regulation (EEC) No 000/90 (repealed). (See end of Document for details)

		2.1.5.	.....
		2.1.6.	.....
	2.2.	Apparatus	
		2.2.1.	.....
		2.2.2.	.....
		2.2.3.	.....
		2.2.4.	.....
	2.3.	Procedure	
		2.3.1.	Preparation of the sample of wine or must
		2.3.2.	Preparation of the calibration curve
		2.3.3.	Fluorimetric determination
		2.3.4.	Expression of results
3.	USUAL METHOD (colorimetric method)		
	3.1.	Reagents	
		3.1.1.	.....
		3.1.2.	.....
		3.1.3.	.....
		3.1.4.	.....
		3.1.5.	.....
		3.1.6.	.....
		3.1.7.	.....
		3.1.8.	.....
		3.1.9.	.....
		3.1.10.	.....
		3.1.11.	.....
		3.1.12.	.....
		3.1.13.	.....
	3.2.	Apparatus	
		3.2.1.	.....
		3.2.2.	.....
		3.2.3.	.....
		3.2.4.	.....
		3.2.5.	.....
		3.2.6.	.....
		3.2.7.	.....
	3.3.	Procedure	
		3.3.1.	Oxidation of the L-ascorbic acid to dehydroascorbic acid
		3.3.2.	Formation and extraction of the bis(2,4-dinitrophenylhydrazone) derivative of diketogulonic acid...
		3.3.3.	Separation of the bis(2,4-dinitrophenylhydrazone) by chromatography; this is to be...
		3.3.4.	Preparation of the calibration curve
		3.3.5.	Expression of results
		3.3.5.1.	Calculation
24.	pH		
	1.	PRINCIPLE	
	2.	APPARATUS	
		2.1.	.....
		2.2.	Electrodes:
		2.2.1.	.....
		2.2.2.	.....
		2.2.3.	.....

3.	REAGENTS	
3.1.	Buffer solutions	
3.1.1.	.....
3.1.2.	.....
3.1.3.	.....
4.	PROCEDURE	
4.1.	Preparation of the sample for analysis	
4.1.1.	.....
4.1.2.	.....
4.2.	Zeroing of the apparatus	
4.3.	Calibration of the pH meter	
4.4.	Determination	
5.	EXPRESSION OF RESULTS	
25.	SULPHUR DIOXIDE	
1.	DEFINITIONS	
2.	FREE AND TOTAL SULPHUR DIOXIDE	
2.1.	Principle of the methods	
2.1.1.	Reference method	
2.1.1.1.	For wines and musts	
2.1.1.2.	For rectified concentrated musts	
2.1.2.	Rapid method of determination (for wines and musts)	
2.2.	Reference method	
2.2.1.	Apparatus	
2.2.1.1.	.....
2.2.1.2.	.....
2.2.2.	Reagents	
2.2.2.1.	.....
2.2.2.2.	.....
2.2.2.3.	.....
2.2.2.4.	.....
2.2.3.	Procedure	
2.2.3.1.	Determination of free sulphur dioxide	
2.2.3.2.	Expression of results	
2.2.3.2.1.	.....
2.2.3.3.	Determination of total sulphur dioxide	
2.2.3.3.1.	.....
2.2.3.3.2.	.....
2.2.3.4.	Expression of results	
2.2.3.4.1.	.....
2.2.3.4.2.	.....
2.2.3.4.3.	.....
2.3.	Rapid method of determination	
2.3.1.	Reagents	
2.3.1.1.	.....
2.3.1.2.	.....
2.3.1.3.	.....
2.3.1.4.	.....
2.3.1.5.	.....
2.3.2.	Apparatus	
2.3.2.1.	.....
2.3.2.2.	.....
2.3.2.5.	.....

- 2.3.3. Procedure
 - 2.3.3.1. Free sulphur dioxide
 - 2.3.3.2. Sulphur dioxide
 - 2.3.4. Expression of results
 - 2.3.4.1. Calculation:
 - 3. MOLECULAR SULPHUR DIOXIDE
 - 3.1. Principle of the method
 - 3.2. Calculation
26. SODIUM
- 1. PRINCIPLE OF THE METHODS
 - 1.1. Reference method: atomic absorption spectrophotometry
 - 1.2. Usual method: flame photometry
 - 2. REFERENCE METHOD
 - 2.1. Reagents
 - 2.1.1. Solution containing 1 g of sodium per litre:
 - 2.1.2. Matrix (model) solution:
 - 2.1.3. Caesium chloride solution containing 5 % caesium:
 - 2.2. Apparatus
 - 2.2.1.
 - 2.2.2.
 - 2.3. Procedure
 - 2.3.1. Preparation of sample
 - 2.3.2. Calibration
 - 2.3.3. Determination
 - 2.4. Expression of results
 - 2.4.1. Method of calculation
 - 2.4.2. Repeatability (r)
 - 2.4.3. Reproducibility (R)
 - 3. USUAL METHOD
 - 3.1. Reagents
 - 3.1.1. Reference solution containing 20 mg sodium per litre
 - 3.1.2. Dilution solution
 - 3.2. Apparatus
 - 3.2.1.
 - 3.3. Procedure
 - 3.3.1. Calibration
 - 3.3.2. Determination
 - 3.4. Expression of results
 - 3.4.1. Method of calculation
 - 3.4.2. Repeatability (r)
 - 3.4.3. Reproducibility (R)
27. POTASSIUM
- 1. PRINCIPLE OF THE METHODS
 - 1.1. Reference method
 - 1.2. Usual method
 - 2. REFERENCE METHOD
 - 2.1. Reagents
 - 2.1.1. Solution containing 1 g of potassium per litre:
 - 2.1.2. Matrix (model) solution:
 - 2.1.3. Caesium chloride solution containing 5 % caesium:
 - 2.2. Apparatus

- 2.2.1.
 - 2.2.2.
 - 2.3. Procedure
 - 2.3.1. Preparation of sample
 - 2.3.2. Calibration
 - 2.3.3. Determination
 - 2.4. Expression of results
 - 2.4.1. Method of calculation
 - 2.4.2. Repeatability (r)
 - 2.4.3. Reproducibility (R)
 - 2.4.4. Other ways of expressing results
 - 3. USUAL METHOD: FLAME PHOTOMETRY
 - 3.1. Reagents
 - 3.1.1. Reference solution containing 100 mg potassium per litre
 - 3.1.2. Dilution solution
 - 3.2. Apparatus
 - 3.2.1.
 - 3.3. Procedure
 - 3.3.1. Calibration
 - 3.3.2. Determination
 - 3.4. Expression of results
 - 3.4.1. Method of calculation
 - 3.4.2. Repeatability (r)
 - 3.4.3. Reproducibility (R)
 - 3.4.4. Other ways of expressing results:
- 28. MAGNESIUM
 - 1. PRINCIPLE OF THE METHOD
 - 2. REAGENTS
 - 2.1. Concentrated standard solution containing 1 g magnesium per litre
 - 2.2. Dilute standard solution containing 5 mg magnesium per litre.
 - 3. APPARATUS
 - 3.1.
 - 3.2.
 - 4. PROCEDURE
 - 4.1. Preparation of sample
 - 4.2. Calibration
 - 4.3. Determination
 - 5. EXPRESSION OF RESULTS
 - 5.1. Method of calculation
 - 5.2. Repeatability (r)
 - 5.3. Reproducibility (R)
- 29. CALCIUM
 - 1. PRINCIPLE OF THE METHOD
 - 2. REAGENTS
 - 2.1. Standard solution containing 1 g calcium per litre
 - 2.2. Dilute standard solution containing 50 mg calcium per litre
 - 2.3. Lanthanum chloride solution containing 50 g lanthanum per litre
 - 3. APPARATUS
 - 3.1.
 - 3.2.
 - 4. PROCEDURE

- 4.1. Preparation of sample
- 4.2. Calibration
- 4.3. Determination
- 5. EXPRESSION OF RESULTS
 - 5.1. Method of calculation
 - 5.2. Repeatability (r)
 - 5.3. Reproducibility (R)
- 30. IRON
 - 1. PRINCIPLE OF THE METHODS
 - 2. REFERENCE METHOD
 - 2.1. Reagents
 - 2.1.1.
 - 2.1.2.
 - 2.2. Apparatus
 - 2.2.1.
 - 2.2.2.
 - 2.2.3.
 - 2.3. Procedure
 - 2.3.1. Preparation of sample
 - 2.3.2. Calibration
 - 2.3.3. Determination
 - 2.4. Expression of results
 - 2.4.1. Method of calculation
 - 3. USUAL METHOD
 - 3.1. Reagents
 - 3.1.1.
 - 3.1.2.
 - 3.1.3.
 - 3.1.4.
 - 3.1.5.
 - 3.1.6.
 - 3.1.7.
 - 3.1.8.
 - 3.1.9.
 - 3.1.10.
 - 3.2. Apparatus
 - 3.2.1.
 - 3.2.2.
 - 3.3. Procedure
 - 3.3.1. Digestion
 - 3.3.1.1. For wines with sugar content below 50 g/l:
 - 3.3.1.2. For musts and wines with sugar content above 50 g/l:
 - 3.3.1.2.1.
 - 3.3.1.2.2.
 - 3.3.2. Blank experiment
 - 3.3.3. Determination
 - 3.3.4. Calibration
 - 3.4. Expression of results
 - 3.4.1. Method of calculation
- 31. COPPER
 - 1. PRINCIPLE OF THE METHOD

- 2. APPARATUS
 - 2.1.
 - 2.2.
 - 2.3.
 - 2.4.
 - 3. REAGENTS
 - 3.1.
 - 3.2.
 - 3.3.
 - 3.4.
 - 3.5.
 - 4. PROCEDURE
 - 4.1. Preparation of sample and determination of copper
 - 4.2. Calibration
 - 4.3.
 - 5. EXPRESSION OF RESULTS
 - 5.1. Method of calculation
32. CADMIUM
- 1. Principle
 - 2. APPARATUS
 - 2.1.
 - 2.2.
 - 2.3.
 - 3. REAGENTS
 - 3.1.
 - 3.2.
 - 3.3.
 - 3.4.
 - 3.5.
 - 3.6.
 - 3.7.
 - 4. PROCEDURE
 - 4.1. Preparation of the sample
 - 4.2. Preparation of the calibration range of solutions
 - 4.3. Determination
 - 4.3.1. Programming of oven (for guidance only):
 - 4.3.2. Atomic absorption measurements:
 - 5. EXPRESSION OF RESULTS
 - 5.1. Method of calculation
33. SILVER
- 1. PRINCIPLE OF THE METHOD
 - 2. APPARATUS
 - 2.1.
 - 2.2.
 - 2.3.
 - 2.4.
 - 2.5.
 - 2.6.
 - 3. REAGENTS
 - 3.1.
 - 3.2.

- 3.3.
 - 3.4.
 - 3.5.
 - 4. PROCEDURE
 - 4.1. Preparation of sample
 - 4.2. Calibration
 - 4.3.
 - 5. EXPRESSION OF RESULTS
 - 5.1. Method of calculation
34. ZINC
- 1. PRINCIPLE OF THE METHOD
 - 2. REAGENTS
 - 2.1.
 - 2.2.
 - 3. APPARATUS
 - 3.1.
 - 3.2.
 - 3.3.
 - 4. PROCEDURE
 - 4.1. Preparation of sample
 - 4.2. Calibration
 - 4.3. Determination
 - 5. EXPRESSION OF RESULTS
 - 5.1. Method of calculation
35. LEAD
- 1. PRINCIPLE
 - 2. APPARATUS
 - 2.1.
 - 2.2.
 - 2.3.
 - 3. REAGENTS
 - 3.1.
 - 3.2.
 - 3.3.
 - 3.4.
 - 4. PROCEDURE
 - 4.1. Preparation of the sample
 - 4.2. Preparation of the calibration range of solutions
 - 4.3. Determination
 - 4.3.1 Programming of oven (for guidance only):
 - 4.3.2 Measurements
 - 5. EXPRESSION OF RESULTS
 - 5.1. Method of calculation
36. FLUORIDES
- 1. PRINCIPLE
 - 2. APPARATUS
 - 2.1.
 - 2.2.
 - 2.3.
 - 2.4.

- 2.5.
- 2.6.
- 3. REAGENTS
 - 3.1.
 - 3.2.
 - 3.3.
- 4. PROCEDURE
 - 4.1. Direct method
 - 4.2. The known additions method
- 5. CALCULATIONS

37. CARBON DIOXIDE

- 1. PRINCIPLE OF THE METHOD
 - 1.1. Reference method
 - 1.1.1. Still wines (CO₂ over pressure $\leq 0,5 \times 10^5$ Pa)
 - 1.1.2. Sparkling and semi-sparkling wines
 - 1.2. Usual method: sparkling and semi-sparkling wines
- 2. REFERENCE METHOD
 - 2.1.
 - 2.1.1. Apparatus
 - 2.1.1.1.
 - 2.1.1.2.
 - 2.1.2. Reagents
 - 2.1.2.1.
 - 2.1.2.2.
 - 2.1.2.3.
 - 2.1.3. Procedure
 - 2.1.4. Expression of results
 - 2.2. Sparkling and semi-sparkling wines
 - 2.2.1. Apparatus
 - 2.2.1.1.
 - 2.2.1.2.
 - 2.2.2. Reagents
 - 2.2.2.1.
 - 2.2.2.2.
 - 2.2.2.3.
 - 2.2.3. Procedure
 - 2.2.4. Expression of results
 - 2.3. Calculation of the theoretical excess pressure
- 3. USUAL METHOD: SPARKLING AND SEMI-SPARKLING WINES
 - 3.1. Apparatus
 - 3.1.1. Aphrometer
 - 3.2. Procedure
 - 3.3. Expression of results
- 4. RELATIONSHIP BETWEEN THE PRESSURE AND THE QUANTITY OF CARBON DIOXIDE...

37a — MEASURING EXCESS PRESSURE IN SPARKLING AND SEMI-SPARKLING WINES

- 1. PRINCIPLE
- 2. EQUIPMENT
 - 2.1. Bottles with capsules
 - 2.2. Bottles with corks

3. PROCEDURE
 - 3.1. Bottles with capsules
 - 3.2. Bottles with corks
 4. EXPRESSION OF RESULTS
 5. CONTROLLING THE RESULTS
-
38. CYANIDE DERIVATIVES
 1. PRINCIPLE
 2. APPARATUS
 - 2.1. Distillation apparatus
 - 2.2.
 - 2.3.
 - 2.4.
 - 2.5.
 3. REAGENTS
 - 3.1.
 - 3.2.
 - 3.3.
 - 3.4.
 - 3.5.
 - 3.6.
 4. PROCEDURE
 - 4.1. Distillation
 - 4.2. Measurement
 5. DETERMINING THE CALIBRATION CURVE
 - 5.1. Argentometric titration of the potassium cyanide
 - 5.2. Standard curve
 - 5.2.1. Preparation of standard solutions
 - 5.2.2. Titration
 6. EXPRESSION OF RESULTS
 - 6.1. Method of calculation
-
39. ALLYL ISOTHIOCYANATE
 1. PRINCIPLE OF THE METHOD
 2. REAGENTS
 - 2.1.
 - 2.2.
 - 2.3.
 3. APPARATUS
 - 3.1.
 - 3.2.
 - 3.3.
 - 3.4.
 - 3.5.
 - 3.6.
 4. PROCEDURE
-
40. CHROMATIC PROPERTIES
 1. WINES AND MUSTS
 - 1.1. Definitions
 - 1.2. Principle of the methods
 - 1.2.1. Reference method
 - 1.2.2. Usual method (applicable to red and rosé wines)

- 1.3. Reference method
 - 1.3.1. Apparatus
 - 1.3.1.1.
 - 1.3.1.2.
 - 1.3.2. Procedure
 - 1.3.2.1. Preparation of the sample
 - 1.3.2.2. Measurements
 - 1.3.3. Calculations
 - 1.3.4. Expression of results
 - 1.3.4.1.
 - 1.3.4.2.
 - 1.3.4.3.
- 1.4. Usual method
 - 1.4.1. Apparatus
 - 1.4.1.1.
 - 1.4.1.2.
 - 1.4.2. Preliminary preparation of the sample
 - 1.4.3. Procedure
 - 1.4.4. Expression of results
 - 1.4.4.1. Calculations

TABLE Transformation of absorbences to transmittances (T%)

Method of use

Example:

- 2. RECTIFIED CONCENTRATED MUSTS
 - 2.1. Principle of the method
 - 2.2. Apparatus
 - 2.2.1.
 - 2.2.2.
 - 2.2.3.
 - 2.3. Procedure
 - 2.3.1. Preparation of the sample
 - 2.3.2. Determination of absorbence
 - 2.4. Expression of results

- 41. FOLIN-CIOCALTEU INDEX
 - 1. DEFINITION
 - 2. PRINCIPLE OF THE METHOD
 - 3. REAGENTS
 - 3.1. Folin-Ciocalteu reagent
 - 3.2.
 - 4. APPARATUS
 - 4.1.
 - 4.2.
 - 5. PROCEDURE
 - 5.1. Red wine
 - 5.2. White wine
 - 5.3. Rectified concentrated must
 - 5.3.1. Preparation of sample
 - 5.3.2. Measurement
 - 6. EXPRESSION OF RESULTS
 - 6.1. Method of calculation
 - 6.2. Repeatability

42. SPECIAL METHODS OF ANALYSIS FOR RECTIFIED CONCENTRATED GRAPE MUST

- (a) TOTAL CATIONS
1. PRINCIPLE OF THE METHOD
 2. APPARATUS
 - 2.1.
 - 2.2.
 - 2.3.
 3. REAGENTS
 - 3.1.
 - 3.2.
 - 3.3.
 4. PROCEDURE
 - 4.1. Preparation of sample
 - 4.2. Preparation of the ion exchange column
 - 4.3. Ion exchange
 5. EXPRESSION OF RESULTS
 - 5.1.
- (b) CONDUCTIVITY
1. PRINCIPLE OF THE METHOD
 2. APPARATUS
 - 2.1.
 - 2.2.
 3. REAGENTS
 - 3.1.
 - 3.2.
 4. PROCEDURE
 - 4.1. Preparation of the sample to be analysed
 - 4.2. Determination of conductivity
 5. EXPRESSION OF RESULTS
 - 5.1. Calculations
- (c) HYDROXYMETHYLFURFURAL (HMF)
1. PRINCIPLE OF THE METHODS
 - 1.1. Colorimetric method
 - 1.2. High-performance liquid chromatography (HPLC)
 2. COLORIMETRIC METHOD
 - 2.1. Apparatus
 - 2.1.1.
 - 2.1.2.
 - 2.2. Reagents
 - 2.2.1. Barbituric acid, 0,5 % solution (m/v).
 - 2.2.2. Paratoluidine solution, 10 % (m/v).
 - 2.2.3. Ethanal (acetaldehyde), CH₃CHO, 1 % (m/v) aqueous solution.
 - 2.2.4. Hydroxymethylfurfural, C₆O₃H₆, 1 g/l aqueous solution.
 - 2.3. Procedure
 - 2.3.1. Preparation of sample
 - 2.3.2. Colorimetric determination
 - 2.3.3. Preparation of the calibration curve
 - 2.4. Expression of results
 - 2.4.1. Method of calculation
 3. HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY

- 3.1. Apparatus
 - 3.1.1. High-performance liquid chromatograph equipped with:
 - 3.1.2.
 - 3.2. Reagents
 - 3.2.1.
 - 3.2.2.
 - 3.2.3.
 - 3.2.4.
 - 3.2.5.
 - 3.3. Procedure
 - 3.3.1. Preparation of sample
 - 3.3.2. Chromatographic determination
 - 3.4. EXPRESSION OF RESULTS
 - 3.4.1. Method of calculation
- (d) HEAVY METALS
- 1. PRINCIPLE OF THE METHODS
 - I. Rapid method for evaluation of heavy metals
 - II. Determination of lead content by atomic absorption spectrophotometry
 - 2. RAPID METHOD FOR EVALUATION OF HEAVY METALS
 - 2.1. Reagents
 - 2.1.1. Dilute hydrochloric acid, 70 % (m/v).
 - 2.1.2. Dilute hydrochloric acid, 20 % (m/v).
 - 2.1.3.
 - 2.1.4. pH 3,5 buffer solution.
 - 2.1.5.
 - 2.1.6.
 - 2.1.7. Thioacetamide reagent.
 - 2.1.8. Solution containing 0,002 g/l of lead.
 - 2.2. Procedure
 - 2.3. Calculations
 - 3. DETERMINATION OF LEAD CONTENT BY ATOMIC ABSORPTION SPECTROPHOTOMETRY
 - 3.1. Apparatus
 - 3.1.1.
 - 3.1.2.
 - 3.2. Reagents
 - 3.2.1. Dilute acetic acid.
 - 3.2.2.
 - 3.2.3.
 - 3.2.4.
 - 3.3. Procedure
 - 3.3.1. Preparation of solution to be examined
 - 3.3.2. Preparation of reference solutions
 - 3.3.3. Control
 - 3.3.4. Determination
 - 3.4. Expression of results
 - 3.4.1. Calculations
- (e) CHEMICAL DETERMINATION OF ETHANOL
- 1. PRINCIPLE OF THE METHOD
 - 2. APPARATUS
 - 2.1.

Changes to legislation: There are currently no known outstanding effects for the
Commission Regulation (EEC) No 000/90 (repealed). (See end of Document for details)

3. REAGENTS
 - 3.1. Potassium dichromate solution.
 - 3.2. Iron (II) ammonium sulphate solution.
 - 3.3. Potassium permanganate solution.
 - 3.4. Dilute sulphuric acid, 1:2 (v/v).
 - 3.5. Ferrous orthophenanthroline reagent.
4. PROCEDURE
 - 4.1. Distillation
 - 4.2. Oxidation
 - 4.3. Titration
5. EXPRESSION OF RESULTS
 - 5.1. Method of calculation
- (f) MESO-INOSITOL, SCYLLO-INOSITOL AND SUCROSE
 1. PRINCIPLE
 2. REAGENTS
 - 2.1.
 - 2.2.
 - 2.3.
 - 2.4.
 - 2.5.
 3. APPARATUS
 - 3.1.
 - 3.2.
 - 3.3.
 - 3.4.
 - 3.5.
 - 3.6.
 - 3.7.
 4. METHOD OF OPERATION
 5. CALCULATION OF RESULTS
 - 5.1.
 6. EXPRESSION OF RESULTS
 - 6.1.
43. DETERMINATION OF THE ISOTOPIC RATIO $^{18}\text{O}/^{16}\text{O}$ OF THE WATER CONTENT...
 - I. DESCRIPTION OF THE METHOD
 1. Method objective
 2. Principle
 3. Reagents
 4. Laboratory equipment
 5. Experimental determinations
 - 5.1. Manual method
 - Operational mode of the equilibration method
 - Degasing of the ramp
 - Equilibration of the water and the CO_2
 - Transfer of the CO_2 exchanged in the measuring cells
 - 5.2. Use of an automatic exchange apparatus
 6. Calculation and expression of the results
 7. Fidelity
44. DETERMINATION OF ETHYL CARBAMATE IN WINE: SELECTIVE DETECTION METHOD USING...

- A. Principle
 - B. Apparatus and chromatographic conditions (example)
 - C. Reagents
 - D. Preparation of the test sample
 - E. Extraction
 - F. GC/MS analysis
 - G. Collaborative analysis
45. DETERMINATION BY ISOTOPE MASS SPECTROMETRY OF THE ¹³C/¹²C RATIO IN...
- 1. FIELD OF APPLICATION
 - 2. REFERENCE STANDARDS
 - 3. TERMS AND DEFINITIONS
 - 4. PRINCIPLE
 - 5. REAGENTS
 - 6. APPARATUS AND EQUIPMENT
 - 6.1. Isotope ratio mass spectrometer (IRMS)
 - 6.2. Combustion apparatus
 - 6.2.1. Continuous-flow systems
 - 6.2.2. Separate preparation system
 - 7. PREPARATION OF SAMPLES FOR TESTS
 - 8. PROCEDURE
 - 9. CALCULATION
 - 10. QUALITY ASSURANCE AND CONTROL
 - 11. PERFORMANCE CHARACTERISTICS OF THE METHOD (Accuracy)
 - 11.1. Joint study on distillates
 - 11.2. Interlaboratory study on two wines and one alcohol
 - 11.3. Results of the exercises carried out to monitor proficiency in...
 - 11.4. Limits of repeatability and reproducibility

Changes to legislation:

There are currently no known outstanding effects for the Commission Regulation (EEC)
No 000/90 (repealed).