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Yogurt — Determination of titratable acidity — Potentiometric method

Yaourt — Détermination de l'acidité titrable — Méthode potentiométrique



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Foreword

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International Standard ISO 11869 was prepared by Technical Committee ISO/TC 34, *Agricultural food products*, Subcommittee SC 5, *Milk and milk products*, in collaboration with the International Dairy Federation (IDF) and AOAC INTERNATIONAL, and will also be published by these organizations.

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Yogurt — Determination of titratable acidity — Potentiometric method

1 Scope

This International Standard specifies a potentiometric method for the determination of the titratable acidity of natural yogurt, flavoured sweetened yogurt and fruit yogurt.

2 Definitions

For the purposes of this International Standard, the following definition applies.

2.1 titratable acidity of yogurt: Volume of sodium hydroxide solution required to titrate a quantity of yogurt to pH $8,3 \pm 0,01$, divided by the mass of the test portion.

The titratable acidity is expressed in millimoles per 100 g.

3 Principle

Suspension of a test portion in water. Potentiometric titration with sodium hydroxide solution [$c(\text{NaOH}) = 0,1 \text{ mol/l}$] to pH $8,3 \pm 0,01$. Calculation of titratable acidity.

4 Reagents

Use only reagents of recognized analytical quality, unless otherwise specified, and distilled or deionized water, freed from carbon dioxide by boiling for 10 min before use.

4.1 Sodium hydroxide, standard volumetric solution, $c(\text{NaOH}) = 0,1 \text{ mol/l} \pm 0,002 \text{ mol/l}$, carbon free.

Protect this solution against the absorption of carbon dioxide.

NOTE 1 Absorption of carbon dioxide can be avoided by connecting a washing bottle that contains the sodium hydroxide solution (4.1) to the burette which itself contains the sodium hydroxide solution, or by connecting a small tube with fresh sodium hydroxide/calcium oxide to the end of the burette to obtain a closed system. CO_2 will either be bound in the washing bottle or in the tube to protect the solution in the burette against absorption which would influence the concentration.

5 Apparatus

Usual laboratory equipment and, in particular, the following.

5.1 Analytical balance, capable of weighing to $\pm 0,01 \text{ g}$.