

Methods for

Chemical analysis of condensed milks —

**Part 6: Determination of sucrose
content of sweetened condensed milk**

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Dairying Standards Policy Committee (DAC/-) to Technical Committee DAC/3, upon which the following bodies were represented:

- AFRC Institute of Food Research (Reading Laboratory)
- Association of British Preserved Milk Manufacturers
- Association of Public Analysts
- Association of Public Analysts of Scotland
- Creamery Proprietors' Association
- Department of Trade and Industry (Laboratory of the Government Chemist)
- Ice Cream Alliance Limited
- Intervention Board for Agricultural Produce
- Joint Committee of the Milk Marketing Board and the Dairy Trade Federation
- Milk Marketing Board
- Milk Marketing Board for Northern Ireland
- Ministry of Agriculture, Fisheries and Food
- Royal Association of British Dairy Farmers
- Royal Society of Chemistry
- Society of Chemical Industry
- Society of Dairy Technology

This British Standard, having been prepared under the direction of the Dairying Standards Policy Committee, was published under the authority of the Board of BSI and comes into effect on 29 June 1990

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The following BSI references relate to the work on this standard:
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Amendments issued since publication

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National foreword

NOTE This Part should be read in conjunction with Part 1 “General introduction, including preparation of test samples”, which is published separately.

This Part of BS 1742, which has been prepared under the direction of the Dairying Standards Policy Committee, is identical with ISO 2911:1976 “Sweetened condensed milk — Determination of sucrose content — Polarimetric method”, published by the International Organization for Standardization (ISO). The method described in the International Standard was developed jointly with the International Dairy Federation (IDF) and the Association of Official Analytical Chemists (AOAC). This Part supersedes clause 8 of BS 1742:1951, which is deleted by amendment.

Cross-references

International Standard	Corresponding British Standard
ISO 707:1985	BS 809:1985 <i>Methods for sampling of milk and milk products</i> (Identical)
ISO 1042:1983	BS 1792:1982 <i>Specification for one-mark volumetric flasks</i> (Identical)
ISO 1737:1985	BS 1742 <i>Methods for chemical analysis of condensed milks</i> Part 3:1990 <i>Determination of fat content</i> (Identical)

The Technical Committee has reviewed the provisions of ISO 648:1977, to which reference is made in the text, and has decided that they are acceptable for use in conjunction with this standard. A related British Standard to ISO 648:1977 is BS 1583:1986 “Specification for one-mark pipettes”. One-mark pipettes complying with BS 1583 may be used in place of those complying with ISO 648:1977.

Additional information. Laboratories in the UK using this method have reported that the repeatability value of 0.3 g of sucrose per 100 g of sweetened condensed milk is seldom met and that repeatabilities of 0.6 g per 100 g or less are satisfactory. ISO has been informed and the International Standard is being revised.

NOTE It is recommended that analysts should periodically undertake duplicate determinations to verify that results having satisfactory repeatabilities are being obtained.

The units used in the standard are based on normality (N). The corresponding values, expressed as amounts-of-substance concentrations, are as follows.

Clause	As printed	Expressed as amounts of substance concentration
5.1	2N	$c(\text{Zn}(\text{C}_2\text{H}_3\text{O}_2)_2) = 1 \text{ mol/L}$
5.2	1N	$c(\text{K}_4\text{Fe}(\text{CN})_6) = 0.25 \text{ mol/L}$
5.3	6.35N	$c(\text{HCl}) = 6.35 \text{ mol/L}$
5.4	2N	$c(\text{NH}_3) = 2 \text{ mol/L}$
5.5	2N	$c(\text{CH}_3\text{COOH}) = 2 \text{ mol/L}$