STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 2300.4.7—1994

Methods of chemical and physical testing for dairying industry
Method 4.7: Dried milk and dried milk products—Determination of the heat stability of skim milk powder

RECONFIRMATION NOTICE

Technical Committee FT-024 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

Certain documents referenced in the publication may have been amended since the original date of publication. Users are advised to ensure that they are using the latest versions of such documents as appropriate, unless advised otherwise in this Reconfirmation Notice.

Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 22 November 2016.

The following are represented on Technical Committee FT-024:

Australian Chamber of Commerce and Industry
Australian Institute of Food Science and Technology
Meat and Livestock Australia
National Association of Testing Authorities Australia
National Measurement Institute

NOTES

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Australian Standard®

Methods of chemical and physical testing for the dairying industry

Method 4.7: Dried milk and dried milk products—Determination of the heat stability of skim milk powder

PREFACE

This Standard was prepared by the Standards Australia Committee on Chemical Analysis of Dairy Products to supersede AS 1629.3.4—1978, *Methods for the analysis of dried milk and whey—Physical examination—Determination of the heat stability of skim milk powder*. It is technically identical with the method in AS 1629.3.4—1978.

FOREWORD

The heat stability of recombined evaporated milk during the sterilization process is determined principally by the heat stability of the component skim milk powder. Small amounts of the sodium salts of phosphoric acid may also be used to achieve optimum heat stability.

Heat stability in skim milk powder is achieved by applying sufficient heat to the skim milk, prior to concentration and drying, to denature the majority of the whey protein content. Such skim milk powder is classified as 'high heat' and would have undenatured whey protein nitrogen (UDWPN) less than 1.5 mg/g.

An indication of the suitability of 'high heat' skim milk powder for recombined evaporated milk manufacture, including the amount of phosphate stabilizers that may be required, can be obtained using the method described in this Standard.

A minimum heat stability in the order of 18 minutes would normally be required by manufacturers of recombined evaporated milk. A combination of heat treatment and phosphate stabilizer addition is likely to be required early in the milk season to obtain this value, with heating alone probably becoming sufficient as the season progresses.

METHOD

1 SCOPE This Standard sets out a method for determining the heat stability of skim milk powder intended for reconstitution as evaporated milk and provides an indication of the suitability of the powder for this purpose.

2 REFERENCED DOCUMENTS The following document is referred to in this Standard:

AS
2300 Methods of chemical and physical testing for the dairying industry