

STANDARDS AUSTRALIA

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**RECONFIRMATION**

**OF**

**AS 2300.4.8—1994**

**Methods of chemical and physical testing for the dairying industry  
Method 4.8: Dried milk and dried milk products—Determination of undenatured  
whey protein nitrogen (UDWPN) in dried skim milk**

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**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 10 October 2019.

The following are represented on Technical Committee FT-024:

Australian Institute of Food Science and Technology  
Consumers Federation of Australia  
CSIRO  
Meat and Livestock Australia  
National Association of Testing Authorities Australia  
National Measurement Institute  
NSW Food Authority  
Royal Australian Chemical Institute

## NOTES

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## Methods of chemical and physical testing for the dairying industry

### Method 4.8: Dried milk and dried milk products—Determination of undenatured whey protein nitrogen (UDWPN) in dried skim milk

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#### PREFACE

This Standard was prepared by the Standards Australia Committee on Chemical Analysis of Dairy Products to supersede a turbidimetric method given in AS 1629—1974, *Methods for the analysis of dried milk and whey*.

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#### METHOD

**1 SCOPE** This Standard sets out a method for the determination of the undenatured whey protein nitrogen (UDWPN) content of dried skim milk.

NOTE: The dye-binding method given is suitable for the testing of a large number of samples. If the number of samples is small, the UDWPN content may be determined directly by the Kjeldahl method described in Appendix A.

**2 REFERENCED DOCUMENTS** The following documents are referred to in this Standard:

AS

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|------------|--|
| 2164       | One-mark volumetric flasks   |
| 2166       | One-mark pipettes  |
| 2167       | Straight pipettes  |
| 2300       | Methods of chemical and physical testing for the dairying industry                               |
| 2300.1.2.1 | Method 1.2.1: General methods and principles—Determination of nitrogen—Reference Kjeldahl method |
| 2300.1.6   | Method 1.6: General methods and principles—Determination of pH                                   |
| 2300.4.1   | Method 4.1: Dried milk and dried milk products—General information and preparation of samples    |

**3 PRINCIPLE** Casein and denatured whey protein are precipitated from the reconstituted dried skim milk by saturation with sodium chloride and the precipitate removed by filtration. The undenatured whey proteins are then precipitated from the filtrate by reaction with a standardized solution of amido black dye. After centrifugation the excess dye in the supernatant liquor is measured spectrophotometrically and the UDWPN content is calculated from a standard curve.

**4 REAGENTS (See also Appendix A)**

**4.1 General** Only reagents of recognized analytical reagent grade and freshly distilled water or water of equivalent purity shall be used.