

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

METHODS OF CHEMICAL AND PHYSICAL TESTING FOR THE DAIRYING INDUSTRY

AS 2300.1.5

GENERAL METHODS AND PRINCIPLES— DETERMINATION OF ASH

PREFACE

This Standard was prepared by the Association's Committee on Chemical Analysis of Dairy Products as a general method for the determination of ash in a range of dairy products.

This method supersedes similar methods which had been previously published as sections of Australian Standards applicable to specific products. The earlier methods were:

AS	
N48—1965	Section 6, which was an endorsement of BS 1742—1951 with amendment
N60—1978	Section 10
N72—1970	Section 7
1084—1975	Section 9
1629—1974	Section 5.6. This was first published as parts of AS N61—1965 and AS N67—1970

METHOD

1 SCOPE. This Standard sets out a method for the determination of ash in dairy products.

2 APPLICATION. The method is applicable to liquid milks, condensed milk, ice cream and frozen milk products, dried milks, caseins, caseinates and coprecipitates.

3 DEFINITION. For the purpose of this Standard the definition below applies.

3.1 Ash—the percentage by mass of residue obtained after thorough ignition using the procedure described.

4 PRINCIPLE. The sample is dried and the residue is charred, usually over a low Bunsen flame. Oxidation is completed in a furnace at 525°C to 550°C (825°C to 850°C for caseins).

5 REFERENCED DOCUMENTS. The documents below are referred to in this Standard:

AS	
1152	Test sieves
1166	Methods for sampling milk and milk products
BS	
4309	Methods of measuring the performance of laboratory electric resistance furnaces

6 REAGENTS. The following reagents are required:

- (a) *Magnesium acetate solution*, 120 g/L. Dissolve 12 g of hydrated magnesium acetate $((\text{CH}_3\text{COO})_2\text{Mg}\cdot 4\text{H}_2\text{O})$ in water and make up to 100 mL.
- (b) *Ethanol*, 95 percent.

7 APPARATUS. The following apparatus is required:

- (a) Platinum or silica dish, diameter approximately 55 mm.