

Australian Standard<sup>®</sup>

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**Copper alloys**

**Part 1: Determination of lead in  
copper alloys (flame atomic  
absorption spectrometric method)**

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This Australian Standard was prepared by Committee CH/10, Analysis of Metals. It was approved on behalf of the Council of Standards Australia on 9 May 1994 and published on 19 September 1994.

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The following interests are represented on Committee CH/10:

Aluminium Development Council, Australia  
Australasian Institute of Mining and Metallurgy  
Australian Lead Development Association  
Bureau of Steel Manufacturers, Australia  
Copper Technical Data Centre, Australia  
National Association of Testing Authorities, Australia  
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Analytical laboratories  
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OF

AS 1515.1—1994

Copper alloys

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Technical Committee CH-010 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.

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NOTES

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## PREFACE

This Standard was prepared by the Australia Standards Committee CH/10 on the Analysis of Metals to supersede AS K209.1—1970, *Methods for the analysis of copper alloys, Part 1: Lead in copper alloys (atomic absorption spectrometric method)*.

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## STANDARDS AUSTRALIA

## Australian Standard

## Copper alloys

Part 1: Determination of lead in copper alloys—  
Flame atomic absorption spectrometric method

**1 SCOPE** This Standard sets out the flame atomic absorption spectrometric method for the determination of lead in copper alloys. It is applicable to the range of 0.01% to 10% lead. The method has been found satisfactory in the presence of the following elements up to the concentrations indicated:

Aluminium	10%
Copper	80%
Iron	5%
Manganese	5%
Nickel	5%
Silicon	20%
Tin	10%
Zinc	40%

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

## AS

- 2134 Recommended practice for chemical analysis by atomic absorption spectrometry  
2134.1 Part 1: Flame atomic absorption spectrometry  
2162 Code of practice for the use of volumetric glassware  
2164 One-mark volumetric flasks  
2166 One-mark pipettes  
2167 Straight pipettes  
2614 Copper and copper alloys—Sampling for chemical analysis and electrical resistivity  
2850 Chemical analysis—Interlaboratory test programs—For determining precision of analytical method(s)—Guide to the planning and conduct

## BS

- 4237 Report on reproducibility of methods of chemical analysis used in the iron and steel industry

**3 PRINCIPLE** The sample is dissolved in nitric and hydrofluoric acids; after the addition of boric acid, the lead content of the solution is determined by atomic absorption spectroscopy.

**4 REAGENTS**

**4.1 General requirements** All reagents shall be of the highest purity obtainable and distilled water shall be used throughout. Solutions shall be freshly prepared and, where necessary, filtered.