AS 1515.1—1994
Reconfirmed 2016

Australian Standard®

Copper alloys

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

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.

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

Railways of Australia Committee

Additional interests participating in preparation of Standard:

Analytical laboratories

Department of Defence, Materials Research Laboratory

Steel manufacturers

STANDARDS AUSTRALIA

RECONFIRMATION

OF
AS 1515.1—1994
Copper alloys
Part 1: Determination of lead in copper alloys (flame atomic absorption spectrometric method)

RECONFIRMATION NOTICE

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.

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.

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Australian Aluminium Council
Bureau of Steel Manufacturers of Australia
International Copper Association Australia
International Precious Metals Institute
National Association of Testing Authorities Australia

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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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	40%
Silicon	3%
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.