

Australian Standard™

**Lead and lead alloys—Determination
of impurities and alloying elements—
Atomic emission spectrometric method**



Standards Australia

This Australian Standard was prepared by Committee CH/10, Analysis of Metals. It was approved on behalf of the Council of Standards Australia on 31 July 2000 and published on 4 September 2000.

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Australasian Institute of Mining and Metallurgy
Australasian Railway Association
Australian Aluminium Council
Australian Industry Group
National Association of Testing Authorities, Australia
University of New South Wales

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First published as AS 4862—2000.

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Published by Standards Australia International Ltd
GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 3543 6

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CH/10, Analysis of Metals. It is the result of a consensus among the representatives on the Joint Committee to produce it as an Australian Standard.

The objective of this Standard is to provide a method for the determination of impurities and alloying elements in lead and lead alloys by arc/spark atomic emission spectrometry. The performance data included in this Standard was provided by the following companies:

- (i) Pasminco Port Pirie Smelter Pty Ltd.
- (ii) Universal Inspection and Testing Company Pty Ltd, N.S.W.
- (iii) Universal Inspection and Testing Company Pty Ltd, Vic.

The term 'informative' has been used in this Standard to define the application of the appendix to which it applies. An 'informative' appendix is only for information and guidance.

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STANDARDS AUSTRALIA

Australian Standard

Lead and lead alloys—Determination of impurities and alloying elements—Atomic emission spectrometric method

1 SCOPE

This Standard specifies a method for the determination of impurities and alloying elements in lead and lead alloys by arc/spark atomic emission spectrometry. The method is applicable to the following elements in the concentration ranges shown below:

Element	Concentration range, %
Aluminium	0.0001 – 0.05
Antimony	0.0002 – 14.0
Arsenic	0.0003 – 3.0
Bismuth	0.0001 – 1.5
Cadmium	0.0001 – 0.2
Calcium	0.0001 – 1.2
Cobalt	0.0001 – 0.02
Copper	0.0001 – 0.6
Gold	0.0003 – 0.1
Indium	0.0001 – 0.1
Iron	0.0001 – 0.02
Magnesium	0.0001 – 0.5
Manganese	0.0001 – 0.02
Nickel	0.0001 – 0.02
Selenium	0.0005 – 0.06
Silver	0.0001 – 1.0
Sodium	0.0001 – 0.01
Strontium	0.0001 – 0.1
Sulphur	0.0005 – 0.02
Tellurium	0.0002 – 0.3
Thallium	0.0001 – 0.5
Tin	0.0001 – 50
Zinc	0.0001 – 0.1

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

2534 Lead and lead alloys—Sampling for chemical and spectrochemical analysis