

Australian Standard™

Silver and silver bearing alloys

**Part 1: Determination of silver content
(0.1% to 99.9%)—Titrimetric
(potentiometric) method**

This Australian Standard was prepared by Committee CH-010, Analysis of Metals. It was approved on behalf of the Council of Standards Australia on 31 July 2002 and published on 10 October 2002.

The following are represented on Committee CH-010:

AMDEL

Australasian Institute of Mining and Metallurgy

Australian Aluminium Council

Institute of Materials Engineering Australasia

National Association of Testing Authorities Australia

Royal Australian Chemical Institute

University of New South Wales

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STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 5006.1—2002

Silver and silver bearing alloys

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(potentiometric) method**

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Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 22 November 2016.

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

NOTES

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PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand CH-010, Analysis of Metals. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian, rather than an Australian/New Zealand Standard.

The objective of this Standard is to set out a titrimetric method for the determination of silver content in silver and silver bearing alloys.

The following laboratories participated in the inter-laboratory test program, to provide the data given in Table 1:

Australian Gold Refineries
Golden West
Misima Mines Pty Ltd

This Standard is Part 1 of a series comprising:

AS

5006 Silver and silver bearing alloys

5006.1 Part 1: Determination of silver content (0.1% to 99.9%)—Titrimetric (potentiometric) method

5006.2 Part 2: Determination of silver content (1% to 99%)—Gravimetric (fire assay)

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
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Part 1: Determination of silver content (0.1% to 99.9%)—Titrimetric
(potentiometric) method

1 SCOPE

This Standard sets out a titrimetric procedure for the determination of silver content in silver and silver bearing alloys. This method is applicable to alloys containing 0.1% to 99.9% silver. Total of gold and platinum group metals must be less than 20%. Mercury and lead should be absent. If palladium or tungsten are present they need to be complexed.

NOTES:

- 1 Recommended methods of sampling dore bullion for use with this Standard are provided in Appendix A.
- 2 The presence of the following elements may cause difficulties in obtaining a homogeneous sample: iron, antimony, arsenic or nickel.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

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| 2162 | Verification and use of volumetric apparatus |
| 2162.1 | Part 1: General—Volumetric glassware |
| 2162.2 | Part 2: Guide to the use of piston-operated volumetric apparatus (POVA) |
| 2164 | Laboratory glassware—One-mark volumetric flasks |
| 2166 | One-mark pipettes |
| 2167 | Graduated straight pipettes |
| 2165 | Laboratory glassware—Burettes |
| 2243 | Safety in laboratories (series) |
| 2508 | Safe storage and handling information cards for hazardous materials (series) |
| 2830 | Good laboratory practice |
| 2830.1 | Part 1: Chemical analysis |
| 2850 | Chemical analysis—Inter-laboratory test programs—For determining precision of analytical method(s)—Guide to the planning and conduct |

ISO

- | | |
|------|--|
| 3696 | Water for analytical laboratory use—Specification and test methods |
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3 DEFINITIONS

For the purpose of this Standard, the definitions below apply.

3.1 Laboratory sample

A sample as prepared for sending to the laboratory and intended for inspection or testing.