Australian Standard™

# Zinc and zinc alloys—Determination of impurities and alloying elements—Atomic emission 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 29 October 1999 and published on 17 January 2000.

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The following interests are represented on Committee CH/10:

Australasian Institute of Mining and Metallurgy

Australian Aluminium Council

Australian Industry Group

Australian Railway Association

National Association of Testing Authorities, Australia

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# Zinc and zinc alloys— Determination of impurities and alloying elements— Atomic emission spectrometric method

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## 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 zinc and zinc alloys by arc/spark atomic emission spectrometry.

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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# Australian Standard

## Zinc and zinc 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 zinc and zinc 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 – 30 |
| Antimony | 0.002 – 1.3 |
| Arsenic | 0.004 – 1.7 |
| Bismuth | 0.0001 – 0.02 |
| Cadmium | 0.0001 – 2.0 |
| Cerium | 0.0002 – 0.1 |
| Chromium | 0.0001 – 0.2 |
| Cobalt | 0.0003 – 0.3 |
| Copper | 0.0001 – 10 |
| Indium | 0.0001 – 0.3 |
| Iron | 0.0002 – 1.3 |
| Lanthanum | 0.0002 – 0.1 |
| Lead | 0.0002 – 1.5 |
| Magnesium | 0.0002 – 3.0 |
| Manganese | 0.0003 – 0.2 |
| Nickel | 0.0005 – 1.0 |
| Silicon | 0.0003 – 0.5 |
| Silver | 0.0001 – 0.1 |
| Sodium | 0.0001 – 0.1 |
| Thallium | 0.0001 – 0.1 |
| Tin | 0.0002 – 0.5 |
| Titanium | 0.0001 – 0.2 |
| Vanadium | 0.0003 – 0.2 |