

Australian Standard™

**Zinc sulfide concentrates—Chemical  
analysis**

**Part 3: Determination of zinc content—  
Hydroxide precipitation and EDTA  
titrimetric method**

[ISO title: Zinc sulfide concentrates—Determination of zinc content—  
Hydroxide precipitation and EDTA titrimetric method]



This Australian Standard was prepared by Committee MN-005, Copper, Lead, Zinc, Gold and Silver Ores and Concentrates. It was approved on behalf of the Council of Standards Australia on 16 November 2001 and published on 4 January 2002.

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The following interests are represented on Committee MN-005:

Australasian Institute of Mining and Metallurgy  
CSIRO Minerals  
Minerals Council of Australia  
The Royal Australian Chemical Institute

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## PREFACE

This Standard was prepared by the Standards Australia Committee MN-005, Copper, Lead, Zinc, Gold and Silver Ores and Concentrates as part of a programme of standardizing methods for the determination of elements of commercial interest in such materials.

The objective of this Standard is to provide those involved in the analysis of zinc sulfide concentrates with a standardized method of determining gold content supported by precision data obtained from an inter-laboratory test programme.

This Standard is identical with and has been reproduced from ISO 13658:2000, *Zinc sulfide concentrates—Determination of zinc content—Hydroxide precipitation and EDTA titration method*, which has been prepared by ISO/TC 183 Copper, Lead and Zinc Ores and Concentrates. Australia holds the Chairmanship and Secretariat of ISO/TC 183 and has made a significant contribution to the preparation of ISO 13658.

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<i>Reference to International Standard</i>		<i>Australian/New Zealand Standard</i>	
ISO		AS/NZS	
9599	Copper, lead and zinc sulfide concentrates—Determination of hygroscopic moisture in the analysis sample—Gravimetric method	2816	Copper, lead and zinc sulfide concentrates—Determination of hygroscopic moisture in the analysis sample—Gravimetric method
385	Laboratory glassware—Burettes	—	—
385-1	Part 1: General requirements	—	—
648	Laboratory glassware—One-mark pipettes	—	—
1042	Laboratory glassware—One-mark volumetric flasks	—	—
3696	Water for analytical laboratory use—specification and test methods	—	—
4787	Laboratory glassware—Volumetric glassware—Methods for use and testing of capacity	—	—
5725-2	Accuracy (trueness and precision) of measurement methods and results—Part 2: Basic method for the determination of repeatability and reproducibility of a standard measurement method	—	—

ISO		AS	
12739	Zinc sulfide concentrates— Determination of zinc content— Ion- exchange/EDTA titrimetric method	2678	Zinc sulfide concentrates— Chemical analysis
		2678.2	Part 2: Determination of zinc content—Ion-exchange method
13291	Zinc sulfide concentrates— Determination of zinc content— Solvent extraction and EDTA titrimetric method	2678.1	Part 1: Determination of zinc content—Solvent extraction and EDTA titrimetric method
Guide 35	Certification of reference materials— General and statistical principles	—	—

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## AUSTRALIAN STANDARD

**Zinc sulfide concentrates—Chemical analysis****Part 3: Determination of zinc content—Hydroxide precipitation and EDTA titrimetric method****1 Scope**

This International Standard specifies a hydroxide precipitation and EDTA titrimetric method for the determination of the zinc content of zinc ores and concentrates containing 10 % (m/m) to 60 % (m/m) zinc.

**2 Normative references**

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 385-1:1984, *Laboratory glassware — Burettes — Part 1: General requirements.*

ISO 648:1977, *Laboratory glassware — One-mark pipettes.*

ISO 1042:1998, *Laboratory glassware — One-mark volumetric flasks.*

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods.*

ISO 4787:1984, *Laboratory glassware — Volumetric glassware — Methods for use and testing of capacity.*

ISO 5725-2:1994, *Accuracy (trueness and precision) of measurement methods and results — Part 2: Basic method for the determination of repeatability and reproducibility of a standard measurement method.*

ISO 9599:1991, *Copper, iron and zinc sulfide concentrates — Determination of hygroscopic moisture in the analysis sample — Gravimetric method.*

ISO 12739:1997, *Zinc sulfide concentrates — Determination of zinc content — Ion-exchange/EDTA titrimetric method.*

ISO 13291:1997, *Zinc sulfide concentrates — Determination of zinc content — Solvent extraction and EDTA titrimetric method.*

ISO Guide 35:1989, *Certification of reference materials — General and statistical principles.*