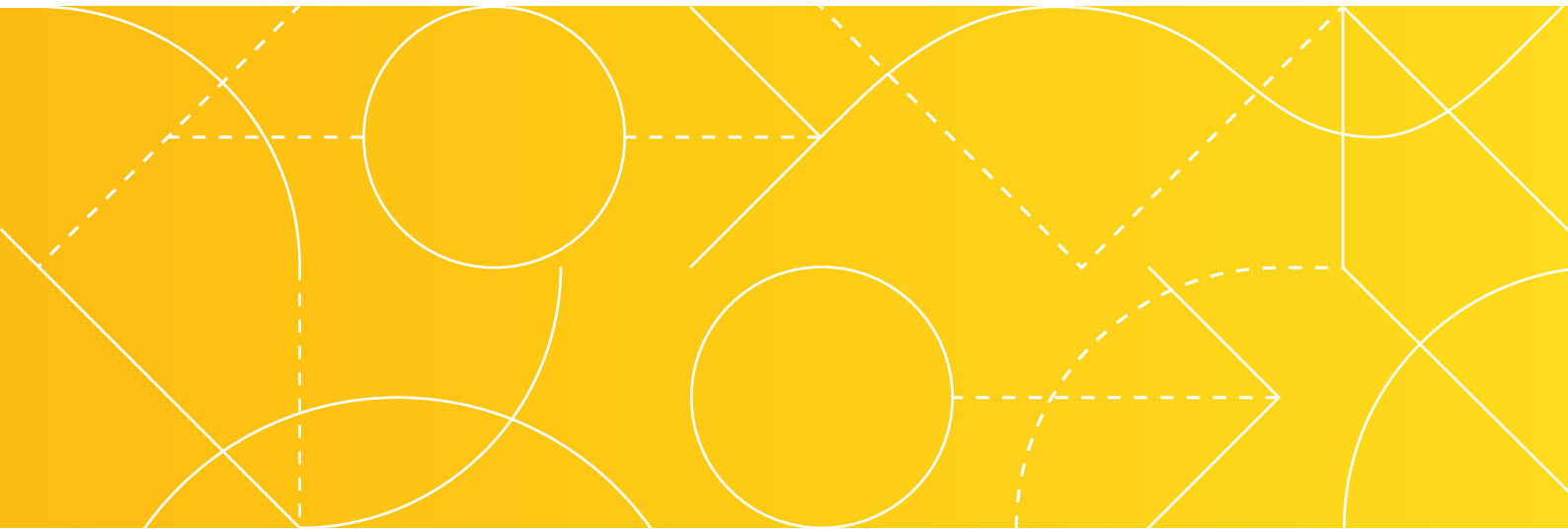
AS ISO 10258:2026
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Australian STANDARD®

Standards Australia

Copper sulfide concentrates — Determination of copper content — Titrimetric methods



AS ISO 10258:2026

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This page explains the meaning of the language and structure of this Standard.

Refer to Standards Australia's Standardisation Guide 006 for more details about drafting rules.

Australian and Australian/New Zealand Standards are voluntary unless they are referenced in legislation or called up in contracts.

Requirements

To conform to a Standard, all requirements in the Standard need to be met.

A requirement is any statement in the Standard which uses the word "shall".

Recommendations, permissions and possibilities

The following words are commonly used in Standards, but statements using them do not have to be followed to conform to the Standard:

(a) "should" means that something is recommended.

(b) "may" means that something is permitted.

(c) "can" means that something is possible.

Structure of Standards

A Standard always has the following parts:

(i) The Preface states who developed the Standard, what the Standard is aiming to do, and how it relates to other documents.

(ii) The Scope states what the Standard is about, what it covers and what it does not cover.

(iii) The Normative references clause lists other documents that are referenced in the Standard as part of requirements.

(iv) The Terms and definitions clause defines important terms to help with understanding the Standard.

A Standard may also include other parts, such as the following:

(1) A normative appendix sets additional requirements that need to be conformed to.

(2) An informative appendix provides additional information or guidance. They usually do not contain requirements. If an informative appendix does contain requirements, the Standard will explain when those requirements apply.

(3) A Bibliography lists documents referenced in the Standard but not as part of requirements.

Many Standards include notes. Notes provide recommendations and/or guidance only. They never contain requirements.

Preface

This Standard was prepared by the Standards Australia Committee MN-005, Copper, Lead, Zinc and Nickel Ores and Concentrates, to supersede AS ISO 10258:2016.

The objective of this document is to specify two titrimetric methods for the determination of the copper content of copper sulfide concentrates in the range 15 % (m/m) to 50 % (m/m), using sodium thiosulfate after separation (method 1) or without separation (method 2) of copper from interfering elements.

This document is identical to ISO 10258:2018, *Copper sulfide concentrates — Determination of copper content — Titrimetric methods.*

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 183, *Copper, lead, zinc and nickel ores and concentrates*.

This third edition is a minor revision and cancels and replaces the second edition (ISO 10258:2015), of which Table C.1, Table C.2, Figure C.2 and Figure C.3 has been revised to correct the following editorial errors:

— Table C.1 title, replaced ‘concentrated’ with ‘concentrate’.

— Table C.2 title, replaced ‘silver’ with ‘copper’.

— Table C.2 list at the bottom of the table, replaced ‘silver’ with ‘copper’.

— Figure C.2 title, replaced ‘silver’ with ‘copper’.

— Figure C.3 title, replaced ‘silver’ with ‘copper’.

— Annex A heading changed to ‘informative’.

— Annex B heading changed to ‘normative’.

• In addition, the following editorial changes have been made:

— Clause 3, Terms and definitions, inserted.

— 10.4 NOTE changed to body text.

— References added for all formulae.

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Australian Standard®

Copper sulfide concentrates — Determination of copper content — Titrimetric methods

1 Scope

This document specifies two titrimetric methods for the determination of the copper content of copper sulfide concentrates in the range 15 % (m/m) to 50 % (m/m), using sodium thiosulfate after separation (method 1) or without separation (method 2) of copper from interfering elements.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 385, *Laboratory glassware — Burettes*

ISO 648, *Laboratory glassware — Single-volume pipettes*

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

ISO 4787, *Laboratory glassware — Volumetric instruments — Methods for testing of capacity and for use*

ISO 9599, *Copper, lead, zinc and nickel sulfide concentrates — Determination of hygroscopic moisture content of the analysis sample — Gravimetric method*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

4 Principle

4.1 Method 1 (Long iodide method)

A test portion is decomposed in nitric and sulfuric acids, and arsenic, antimony and tin are removed by treatment with hydrobromic acid. Copper is separated from interfering elements by precipitation of copper sulfide with sodium thiosulfate. The precipitate is dissolved in nitric and sulfuric acids, ammonium hydrogen difluoride is added to eliminate interference of residual iron, and excess potassium iodide is also added. Free iodine isolated by reaction between iodide ions and copper(II) ions is titrated with sodium thiosulfate using soluble starch as the indicator.

4.2 Method 2 (Short iodide method)

A test portion is decomposed in nitric and sulfuric acids, and arsenic, antimony and tin are removed by treatment with hydrobromic acid. Ammonium hydrogen difluoride is added to eliminate interference of iron, and excess potassium iodide is also added. Free iodine isolated by reaction between iodide ions and copper(II) ions is titrated with sodium thiosulfate using soluble starch as the indicator.

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