

INTERNATIONAL  
STANDARD

**ISO**  
**11459**

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**Iron ores — Certified reference materials —  
Preparation and certification for use in  
chemical analysis**

*Minerais de fer — Matériaux de référence certifiés — Préparation et  
certification pour l'emploi en analyse chimique*



Reference number  
ISO 11459:1997(E)

## **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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 11459 was prepared by Technical Committee ISO/TC 102, *Iron ores*, Subcommittee SC 2, *Chemical analysis*.

Annexes A and B form an integral part of this International Standard. Annexes C and D are for information only.

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## Introduction

This International Standard is intended for use in conjunction with other International Standards for the chemical analysis of iron ores prepared by ISO/TC 102. It follows the principles described in ISO Guides 30, 31, 33 and 35 (see clause 2 and annex D) on the same subject prepared by ISO/REMCO, modified to take into account the special needs of the iron ore analytical community.

The accuracy (precision and trueness) of International Standard methods for the chemical analysis of iron ore has been assessed under international conditions during the development of this International Standard. This accuracy can be achieved, in practice, only if all conditions stated in the standard document are met. To ensure that these conditions are met, an accuracy control mechanism is included in all recently published International Standards for the chemical analysis of iron ores.

The precision control is achieved by using methods described in ISO 5725-2. The trueness control is achieved by using certified reference material (CRM) iron ores. To work properly, the CRM must be prepared and characterized using high-quality standard methods. This International Standard is designed to give the minimum requirement for producing CRM iron ores of sufficient quality for use in conjunction with International Standards for the chemical analysis of iron ores.