# INTERNATIONAL STANDARD



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# Cereals — Determination of bulk density, called mass per hectolitre —

Part 1: Reference method

Céréales — Détermination de la masse volumique, dite masse à l'hectolitre —

Partie 1: Méthode de référence



Reference number ISO 7971-1:2009(E)

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# Foreword

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ISO 7971 (all parts) was prepared on the European Committee for Standardization (CEN) Technical Committee CEN/TC 338, Cereal and cereal products, in collaboration with Technical Committee ISO/TC 34, Food products, Subcommittee SC 4, Cecels and pulses, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the figuedition (ISO 7971-1:2003), which has been revised to take account of ISO 7971-2:2009.

ISO 7971 consists of the following parts, under the general title Cereals - Determination of bulk density, called mass per hectolitre:

- Part 1: Reference method
- Part 2: Method of traceability for measuring instruments though reference to the international standard Wated Dy FLYS instrument
- Part 3: Routine method

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# Cereals — Determination of bulk density, called mass per hectolitre —

Scope

**Reference** method

Part 1:

This part of ISO 7971 specifies the reference method for the determination of bulk density, called "mass per hectolitre", of cereals as grain.

NOTE Several routine methods are used in different countries. A routine method for the determination of bulk density, called "mass per hectolitre", is given in ISO 7971-3.

# 2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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### 2.1

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bulk density

### "mass per hectolitre"

(cereals) ratio of the mass of a cereal to the volume it occupies after being poured into a container under welldefined conditions

NOTE 1 Bulk density is expressed in kilograms per hectolitre of grap as received.

NOTE 2 The bulk density, as defined in this part of ISO 7971, is different from "packing density" or "intrinsic density" of cereals.

## 3 Principle

A sample is poured in a controlled manner from a hopper into a 20 I container, which is then weighed.

## 4 Requirements for apparatus

### 4.1 General

The apparatus used shall comply with the following requirements, which correspond to those in OIML R 15<sup>[2]</sup>, and shall be similar to that shown in Figure 1.