



# SLOVENSKI STANDARD SIST EN ISO 5809:1998

01-november-1998

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## Škrob in škrobni derivati - Določevanje sulfatnega pepela

Starches and derived products - Determination of sulphated ash

Stärke und Stärkederivate - Bestimmung der Sulfatasche

Amidons, féculés et produits dérivés - Détermination des cendres sulfatées

Ta slovenski standard je istoveten z: **EN ISO 5809:1994**

[SIST EN ISO 5809:1998](https://standards.iteh.ai/catalog/standards/sist/54bfb38-b520-4447-8208-eeacdc6cd8d3/sist-en-iso-5809-1998)

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### **ICS:**

67.180.20      Škrob in izdelki iz njega      Starch and derived products

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EUROPEAN STANDARD

EN ISO 5809

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 1994

UDC 664.2:543.822

Descriptors: Starches, chemical analysis, determination of sulphated ash

English version

**Starches and derived products - Determination of sulphated ash**Amidons, fécules et produits dérivés  
Détermination des cendres sulfatéesStärke und Stärkederivate - Bestimmung der  
Sulfatasche**STANDARD PREVIEW**  
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This European Standard was approved by CEN on 1994-09-06. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

**CEN**European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

## Foreword

The text of the International Standard ISO 5809:1982, was prepared by ISO/TC 93 "Starch (including derivatives and by-products)", was submitted to Formal Vote and was approved by CEN as EN ISO 5809 on 1994-09-06 without any modification.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 1995, and conflicting national standards shall be withdrawn at the latest by March 1995.

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

## Endorsement notice

The text of the International Standard ISO 5809:1982 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in annex ZA (normative)

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**Annex ZA (normative)****Normative references to international publications  
with their relevant European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN</u>	<u>Year</u>
ISO 1666	1973	Starch - Determination of moisture content - Oven-drying method	EN ISO 1666	1994
ISO 1741	1980	Dextrose - Determination of loss in mass on drying - Vacuum oven method	EN ISO 1741	1994

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International Standard



5809

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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## Starches and derived products — Determination of sulphated ash

*Amidons, féculés et produits dérivés — Détermination des cendres sulfatées*

First edition — 1982-12-01

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UDC 664.2 : 543.822

Ref. No. ISO 5809-1982 (E)

Descriptors : starches, chemical analysis, determination of sulphated ash.

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

**iTeh STANDARD PREVIEW**

International Standard ISO 5809 was developed by Technical Committee ISO/TC 93, *Starch (including derivatives and by-products)*, and was circulated to the member bodies in February 1982.

SIST EN ISO 5809:1998

It has been approved by the member bodies of the following countries: <https://standards.iteh.ai/catalog/standards/sist/54bf138-b520-4447-8208-eeacdc6cd8d3/sist-en-iso-5809-1998>

Austria	Netherlands	South Africa, Rep. of
Egypt, Arab Rep. of	Poland	USA
France	Portugal	USSR
Germany, F.R.	Romania	

No member body expressed disapproval of the document.



# Starches and derived products — Determination of sulphated ash

## 1 Scope and field of application

This International Standard specifies a method for the determination of sulphated ash in starches and derived products.

## 2 References

ISO 1666, *Starch — Determination of moisture content — Oven-drying methods.*<sup>1)</sup>

ISO 1741, *Dextrose — Determination of loss in mass on drying — Vacuum oven method.*

ISO 1742, *Glucose syrups — Determination of dry matter — Vacuum oven method.*

ISO 1743, *Glucose syrup — Determination of dry matter — Refractive index method.*

## 3 Definition

**sulphated ash:** The residue obtained after incineration of the product, according to the method specified in this International Standard.

It is expressed as a percentage by mass either of the product as-received or on the dry basis.

## 4 Principle

Incineration of a test portion, in the presence of sulphuric acid, at a temperature of  $525 \pm 25$  °C.

The sulphuric acid facilitates the destruction of the organic matter and avoids losses by converting the volatile chlorides into non-volatile sulphates.

## 5 Reagents

During the analysis, use only reagents of recognized analytical quality and only distilled water or water of at least equivalent purity.

### 5.1 Sulphuric acid solution.

Add, carefully, 100 ml of concentrated sulphuric acid,  $\rho_{20}$  1,83 g/ml, to 300 ml of water and mix.

### 5.2 Hydrochloric acid solution.

Add, carefully, 100 ml of concentrated hydrochloric acid,  $\rho_{20}$  1,19 g/ml, to 500 ml of water and mix.

## 6 Apparatus

Ordinary laboratory apparatus, and in particular

**6.1 Incineration dish,** of platinum or any other material which does not deteriorate under the test conditions (for example a silica incineration dish), of capacity 100 to 200 ml and with a minimum useful surface of 15 cm<sup>2</sup>.

**6.2 Electric furnace with air circulation,** capable of being controlled at  $525 \pm 25$  °C.

**6.3 Electric hot-plate or gas burner or heating lamp.**

**6.4 Desiccator,** provided with an efficient desiccant.

**6.5 Water bath,** capable of being controlled at 60 to 70 °C.

**6.6 Analytical balance.**

## 7 Procedure

### 7.1 Preparation of the incineration dish

Clean the incineration dish (6.1), whether it is new or used, with boiling hydrochloric acid solution (5.2), then rinse generously with water.

Calcinate the incineration dish for 30 min in the furnace (6.2), controlled at  $525 \pm 25$  °C. Allow to cool to ambient temperature in the desiccator (6.4) and weigh to the nearest 0,000 2 g (the incineration dish should be calcinated to constant mass).

1) Under revision.