
INTERNATIONAL STANDARD



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Paraformaldehyde for industrial use — Methods of test — Part IV : Determination of water-insoluble matter

Paraformaldéhyde à usage industriel — Méthodes d'essai — Partie IV : Détermination des matières insolubles dans l'eau

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Descriptors : paraformaldehyde, tests, chemical analysis, determination of content, ash, iron, impurities.

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.

Prior to 1972, the results of the work of the technical committees were published as ISO Recommendations; these documents are in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 47, *Chemistry*, has reviewed ISO Recommendation R 1391-1970 and found it technically suitable for transformation. The technical committee, however, divided the recommendation into four parts (ISO 1391, parts I to IV), which therefore replace ISO Recommendation R 1391-1970, to which they are technically identical.

ISO Recommendation R 1391 had been approved by the member bodies of the following countries :

Austria	Ireland	Romania
Belgium	Italy	South Africa, Rep. of
Brazil	Japan	Spain
Czechoslovakia	Korea, Rep. of	Sweden
France	Netherlands	Switzerland
Germany	New Zealand	Thailand
Hungary	Poland	Turkey
Iran	Portugal	United Kingdom

The member body of the following country had expressed disapproval of the Recommendation on technical grounds :

India

The member bodies of the following countries disapproved the transformation of the Recommendation into an International Standard :

France
Netherlands

Paraformaldehyde for industrial use — Methods of test — Part IV : Determination of water-insoluble matter

1 SCOPE AND FIELD OF APPLICATION

This part of ISO 1391 specifies a method for the determination of the water-insoluble matter in paraformaldehyde for industrial use.

This document should be read in conjunction with part I (see the annex).

2 PRINCIPLE

Dissolution of a test portion in very dilute sodium hydroxide solution, filtration through a tared filter crucible and, after drying the residue at $100 \pm 2^\circ\text{C}$, determination of the water-insoluble matter by difference.

3 REAGENTS

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

3.1 Sodium hydroxide, 300 g/l solution.

4 APPARATUS

Ordinary laboratory apparatus and

4.1 Sintered glass crucible, pore size index P 10 or P 16 (see ISO 4793*).

4.2 Electric oven, capable of being controlled at $100 \pm 2^\circ\text{C}$.

5 PROCEDURE

Weigh accurately 5,0 g of the test sample into a 150 ml flask. Add 100 ml of water and 1 drop (approximately 0,05 ml) of the sodium hydroxide solution (3.1). Boil gently for 30 min, avoiding any substantial loss of water. Filter off any insoluble matter using the sintered glass crucible (4.1), previously heated for 30 min at $100 \pm 2^\circ\text{C}$, cooled in a desiccator and weighed to the nearest 0,000 1 g. Wash the residue with water and dry for 30 min in the oven (4.2), controlled at $100 \pm 2^\circ\text{C}$. Allow to cool in a desiccator and weigh to the nearest 0,000 1 g.

6 EXPRESSION OF RESULTS

The water-insoluble matter, expressed as a percentage by mass, is given by the formula

$$\frac{100 m_1}{m_0}$$

where

m_0 is the mass, in grams, of the test portion;

m_1 is the mass, in grams, of the residue.

ANNEX

ISO PUBLICATIONS RELATING TO PARAFORMALDEHYDE FOR INDUSTRIAL USE

ISO 1391/I — General.

ISO 1391/II — Determination of ash.

ISO 1391/III — Determination of iron content — 2,2'-Bipyridyl photometric method.

ISO 1391/IV — Determination of water-insoluble matter.

* In preparation.