
INTERNATIONAL STANDARD



1390 / V

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**Maleic anhydride for industrial use — Methods of test —
Part V : Determination of ash**

*Anhydride maléique à usage industriel — Méthodes d'essai —
Partie V : Détermination des cendres*

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Descriptors : maleic anhydride, tests, chemical analysis, determination, colouring, solidification point, acidity, ash, iron.

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 1390-1970 and found it technically suitable for transformation. The technical committee, however, divided the recommendation into six parts (ISO 1390, parts I to VI), which therefore replace ISO Recommendation R 1390-1970, to which they are technically identical.

ISO Recommendation R 1390 had been approved by the member bodies of the following countries :

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

No member body had expressed disapproval of the Recommendation.

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

France
Netherlands

Maleic anhydride for industrial use – Methods of test – Part V : Determination of ash

1 SCOPE AND FIELD OF APPLICATION

This part of ISO 1390 specifies a method for the determination of ash in maleic anhydride for industrial use.

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

2 PRINCIPLE

Burning of a test portion and heating at 600 ± 30 °C to constant mass.

3 APPARATUS

Ordinary laboratory apparatus and

3.1 Platinum or silica dish.

3.2 Electric furnace, capable of being controlled at 600 ± 30 °C.

4 PROCEDURE

In the dish (3.1), previously heated at 600 ± 30 °C, cooled in a desiccator and weighed to the nearest 0,000 1 g, slowly

burn, in small portions, approximately 50 g, weighed to the nearest 1 g, of the test sample.

Heat finally in the furnace (3.2), controlled at 600 ± 30 °C, until all carbonaceous matter has disappeared. Allow to cool in a desiccator and weigh to the nearest 0,000 1 g. Repeat the operation of heating, cooling, and weighing until the difference in mass between two successive weighings does not exceed 0,000 5 g.

Retain the residue for the determination of iron, if required, as described in part VI.

5 EXPRESSION OF RESULTS

The ash, 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 MALEIC ANHYDRIDE FOR INDUSTRIAL USE

ISO 1390/I – General.

ISO 1390/II – Measurement of colour of molten material.

ISO 1390/III – Determination of free acidity – Potentiometric method.

ISO 1390/IV – Determination of maleic anhydride content – Titrimetric method.

ISO 1390/V – Determination of ash.

ISO 1390/VI – Determination of iron content – 2,2'-Bipyridyl photometric method.