
INTERNATIONAL STANDARD



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Phthalate esters for industrial use — Methods of test — Part III : Determination of ash

*Phthalates à usage industriel — Méthodes d'essai —
Partie III : Détermination des cendres*

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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 1385-1970 and found it technically suitable for transformation. The technical committee, however, divided the Recommendation into five parts (ISO 1385 Parts I to V), which therefore replace ISO Recommendation R 1385-1970, to which they are technically identical.

ISO Recommendation R 1385 had been approved by the member bodies of the following countries :

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

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

Phthalate esters for industrial use — Methods of test — Part III : Determination of ash

1 SCOPE AND FIELD OF APPLICATION

This part of ISO 1385 specifies a method for the determination of the ash of phthalate esters for industrial use.

With diallyl phthalate, this test should be carried out cautiously and only small amounts should be ignited at one time because of the risk of explosive polymerization.

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

2 PRINCIPLE

Burning of a test portion and heating at $600 \pm 30^\circ\text{C}$ to constant mass.

3 APPARATUS

Ordinary laboratory apparatus and

3.1 Platinum or silica dish.

3.2 Electric furnace, capable of being controlled at $600 \pm 30^\circ\text{C}$.

4 PROCEDURE

In the dish (3.1), previously heated in the furnace (3.2), controlled at $600 \pm 30^\circ\text{C}$, 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 laboratory sample. Heat finally in the furnace, controlled at $600 \pm 30^\circ\text{C}$, until all carbonaceous matter has disappeared. Allow to cool in a desiccator and weigh to the nearest 0,000 1 g. Repeat the operations of heating, cooling, and weighing until the difference in mass between two successive weighings does not exceed 0,000 5 g.

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 PHTHALATE ESTERS FOR INDUSTRIAL USE

ISO 1385/I — General.*

ISO 1385/II — Measurement of colour after heat treatment (Diallyl phthalate excluded).

ISO 1385/III — Determination of ash.

ISO 1385/IV — Determination of acidity to phenolphthalein — Titrimetric method.

ISO 1385/V — Determination of ester content — Titrimetric method after saponification.

* The determination of the iodine value specified in ISO 1385/I is applicable only to diallyl phthalate.
The determination of the viscosity specified in ISO 1385/I is not applicable to diallyl phthalate.