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# ISO

### INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION TO THE DETERMINATION TO THE DETE

METHOD FOR THE DETERMINATION OF RESIDUE

ON EVAPORATION ON A WATER BATH

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### **BRIEF HISTORY**

The ISO Recommendation R 759, Method for the determination of residue on evaporation on a water bath, was drawn up by Technical Committee ISO/TC 47, Chemistry, the Secretariat of which is held by the Ente Nazionale Italiano di Unificazione (UNI).

Work on this question by the Technical Committee began in 1956 and led, in 1962, to the adoption of a Draft ISO Recommendation.

In November 1963, this Draft ISO Recommendation (No. 659) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies:

Australia Hungary Portugal
Austria India Romania
Belgium Israel Spain
Chile Italy U.A.R.
Colombia Japan United Kingdom

Czechoslovakia Korea, Rep. of U.S.S.R.
France Netherlands Yugoslavia
Germany Poland

One Member Body opposed the approval of the Draft:

New Zealand

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in June 1968, to accept it as an ISO RECOMMENDATION.

# METHOD FOR THE DETERMINATION OF RESIDUE ON EVAPORATION ON A WATER BATH

### 1. SCOPE

This ISO Recommendation describes a method for the determination of the residue on evaporation on a water bath, in particular, of acetic acid, acetone, *n*-butanol, ethanol, *iso* propyl alcohol, methanol and solvent acetates.

#### 2. PRINCIPLE

Determination of the mass of residue, if any, after evaporation of the sample to constant mass at 110 °C.

3. APPARATUS

Ordinary laboratory apparatus.

## PROCEDURE

- 4.1 Evaporate 100 ml of the sample to dryness in an accurately weighed basin of platinum, silica or borosilicate glass having a capacity of about 150 ml, on a water bath. Continue the drying in an oven at a temperature of 110 ± 2 °C.
- 4.2 Cool the basin and its contents to room temperature in a desiccator, and weigh accurately.
- 4.3 Repeat this series of operations of drying, cooling, and weighing, until the mass recorded is constant.
- 4.4 Determine the mass of the final residue, if any, by difference.

### 5. EXPRESSION OF RESULTS

The residue on evaporation is given as a percentage, by mass, by the following expression :

 $\frac{M}{\rho}$ 

where

- M is the mass, in grammes, of residue found,
- $\rho$  is the density of the sample at 20 °C, in grammes per millilitre.