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1,1,1-trichloroethane for industrial use — List of methods of test

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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.

International Standard ISO 2755 was drawn up by Technical Committee ISO/TC 47, *Chemistry*, and circulated to the Member Bodies in June 1972.

It has been approved by the Member Bodies of the following countries :

Austria	India	Sweden
Belgium	Italy	Switzerland
Czechoslovakia	Netherlands	Thailand
France	Portugal	Turkey
Germany	Romania	United Kingdom
Hungary	South Africa, Rep. of	U.S.S.R.

This International Standard has also been approved by the International Union of Pure and Applied Chemistry (IUPAC).

The Member Body of the following country expressed disapproval of the document on technical grounds :

Ireland

1,1,1-trichloroethane for industrial use – List of methods of test

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies methods of test for stabilized 1,1,1-trichloroethane for industrial use.

2 REFERENCES

ISO/R 758, *Method for the determination of density of liquids at 20 °C.*

ISO/R 760, *Determination of water by the Karl Fischer method.*

ISO/R 918, *Test method for distillation (distillation yield and distillation range).*

ISO/R 1393, *Liquid halogenated hydrocarbons for industrial use – Determination of the acidity.*

ISO 2209, *Liquid halogenated hydrocarbons for industrial use – Sampling.*

ISO 2210, *Liquid halogenated hydrocarbons for industrial use – Determination of residue on evaporation.*

ISO 2211, *Liquid chemical products – Measurement of colour in Hazen units (Platinum-cobalt scale).*

3 SAMPLING

For the preparation of the laboratory sample, use the method specified in ISO 2209.

4 DETERMINATION OF DISTILLATION CHARACTERISTICS

Use the method specified in ISO/R 918, subject to the following modifications appropriate for 1,1,1-trichloroethane.

4.1 Scope (see clause in ISO/R 918)

This determination indicates either

- the temperatures corresponding to the collection of two volumes of distillate, A and B, or
- the difference between these two temperatures.

Alternative b) should be preferred.

The two volumes, A and B, shall be indicated in the specifications for the product agreed between the interested parties.

4.2 Thermometer (see 3.2 in ISO/R 918)

Use a thermometer conforming to the requirements of ISO/R 918 with a scale including the range 45 to 105 °C.

4.3 Correction to be applied to the temperatures (see clause 7 in ISO/R 918)

This correction is necessary only for case a). It is equal to

$$0,043 (760 - p_1) \text{ °C}$$

$$\text{or } 0,032 (1\,013 - p_2) \text{ °C}$$

where

p_1 is the barometric pressure, in millimetres of mercury;

p_2 is the barometric pressure, in kilopascals.¹⁾

5 DETERMINATION OF DENSITY AT 20 °C

Use the method specified in ISO/R 758.

1) 1 kPa = 1 kN/m².

ISO 2755-1973 (E)**6 DETERMINATION OF RESIDUE ON EVAPORATION**

Use the method specified in ISO 2210.

7 DETERMINATION OF WATER CONTENT

Use any of the methods specified in ISO/R 760, using a 50 ml test portion with methanol as solvent.

NOTE — If the water content, determined by any one of these methods, appears to be abnormally high, this may be due to interference by the stabilizing agent. In this case, the procedure to be followed may be defined by agreement between the interested parties.

8 DETERMINATION OF ACIDITY

Use the method specified in ISO/R 1393.

9 MEASUREMENT OF COLOUR IN HAZEN UNITS

Use the method specified in ISO 2211.

10 TEST REPORT

The test report shall include for each test the following particulars :

- a) the reference of the method used;
- b) the results and the method of expression used;
- c) any unusual features noted during the determination;
- d) any operation not included in this International Standard or the documents to which reference is made, or regarded as optional.