INTERNATIONAL STANDARD 1869

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Methylene chloride for industrial use — List of methods of test

Chlorure de méthylène à usage industriel — Liste des méthodes d'essai

First edition — 1977-02-15

UDC 661.7 : 547.412.113 : 620.1

Ref. No. ISO 1869-1977 (E)

Descriptors : halohydrocarbons, dichloromethanes, tests, chemical analysis.

Price based on 2 pages

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 1869-1970 and found it technically suitable for transformation. International Standard ISO 1869 therefore replaces ISO Recommendation R 1869-1970, to which it is technically identical.

ISO Recommendation R 1869 had been approved by the member bodies of the following countries :

Austria	India	South Africa, Rep. of
Belgium	Iran	Spain
Canada	Israel	Switzerland
Czechoslovakia	Italy	Thailand
Egypt, Arab Rep. of	Japan	Turkey
France	Netherlands	United Kingdom
Germany	New Zealand	U.S.A.
Greece	Poland	U.S.S.R.
Hungary	Romania	

No member had expressed disapproval of the Recommendation.

No member body disapproved the transformation of the Recommendation into an International Standard.

Printed in Switzerland

Methylene chloride for industrial use — List of methods of test

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the methods of test for methylene chloride (dichloromethane) (CH_2Cl_2) for industrial use.

2 REFERENCES

ISO 758, *Liquid chemical products for industrial use — Determination of density at 20 °C.*

ISO 760, *Determination of water — Karl Fischer method.*

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

ISO 1393, *Liquid halogenated hydrocarbons for industrial use — Determination of acidity — Titrimetric method.*

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

Prepare the laboratory sample in accordance with ISO 2209.

4 DETERMINATION OF DISTILLATION CHARACTERISTICS

Use the method specified in ISO/R 918, subject to the following details and modifications appropriate for methylene chloride.

4.1 Principle (See clause 2 in ISO/R 918)

This determination indicates either the temperatures corresponding to the collection of each of two volumes of distillate, V_0 and V_1, or the difference between these two volumes. These two volumes will be indicated in the specification for methylene chloride agreed between the interested parties.

4.2 Thermometer (See 3.2 in ISO/R 918)

Range : 39 to 51 °C or other suitable range (for example, − 2 to + 47 °C).

NOTE — Avoid exposure of the thermometer to sunlight during the test.

4.3 Temperature of cooling water (See 6.1 in ISO/R 918)

This temperature shall not exceed 20 °C.

4.4 Distillation rate (See 6.2 in ISO/R 918)

4 to 5 ml/min.

4.5 Temperature correction (See 5.2 and 7.2 in ISO/R 918)

The thermometer correction, which is necessary only when the purpose of the determination is to ascertain the two temperatures corresponding to the volumes of distillate V_0 and V_1, is equal to

$$0{,}040\,(760 - p_1)\ ^\circ\mathrm{C}$$

or

$$0{,}030\,(1\,013 - p_2)\ ^\circ\mathrm{C}$$

where

p_1 is the barometric pressure in millimetres of mercury;

p_2 is the barometric pressure in kilopascals.*

This correction shall be added to the observed temperatures.

5 DETERMINATION OF DENSITY AT 20 °C

Use the method specified in ISO 758, using a density bottle, closed type, of 50 ml capacity.

6 DETERMINATION OF RESIDUE ON EVAPORATION

Use the method specified in ISO 2210.

* 1 kPa = 1 kN/m^2