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International Standard 757/5

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Acetone for industrial use — Methods of test — Part 5 : Control test with Agulhon's reagent

Acétone à usage industriel — Méthodes d'essai — Partie 5 : Essai de contrôle au réactif d'Agulhon

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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 757/5 was developed by Technical Committee ISO/TC 47, *Chemistry*, and was circulated to the member bodies in December 1980.

It has been approved by the member bodies of the following countries :

Australia	India	Portugal
Austria	Ireland	Romania
Belgium	Italy	South Africa, Rep. of
China	Korea, Dem.P.Rep. of	Switzerland
Czechoslovakia	Korea, Rep. of	Thailand
Egypt, Arab Rep. of	Mexico	United Kingdom
Germany, F.R.	Philippines	USSR
Hungary	Poland	

The member body of the following country expressed disapproval of the document on technical grounds :

France

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

International Standards ISO 757/1 to ISO 757/5 cancel and replace ISO Recommendation R 757-1968, of which they constitute a technical revision.

Printed in Switzerland

INTERNATIONAL STANDARD ISO 757/5-1982 (E)

Acetone for industrial use — Methods of test — Part 5 : Control test with Agulhon's reagent

1 Scope and field of application

This part of ISO 757 specifies a control test with Agulhon's reagent, essentially for the detection of alcoholic impurities in acetone for industrial use.

This document should be read in conjunction with ISO 757/1 (see the annex).

2 Principle

Treatment of a test portion with Agulhon's reagent under specified conditions. The presence of certain impurities, in particular alcoholic ones, is indicated by a blue or violet coloration.

3 Reagents

During the test, use only reagents of recognized analytical grade.

3.1 Agulhon's reagent.

Dissolve 0,50 g of potassium dichromate in 30 ml of water and add about 65 ml of nitric acid solution, ϱ approximately 1,40 g/ml. Cool the solution to about 20 °C and dilute to 100 ml with more of the nitric acid solution.

4 Apparatus

Ordinary laboratory apparatus.

5 Procedure

5.1 Test portion

Take, by means of a safety pipette, 1 ml of the laboratory sample.

5.2 Test

Place the test portion (5.1) in a test tube and add 3 ml of the Agulhon's reagent (3.1). Mix and allow the solution to stand at approximately 15 °C for 5 min.

After this period, examine the colour of the solution.

6 Expression of results

If no blue or violet colour appears, report the absence of alcoholic impurities.

Annex

ISO publications relating to acetone for industrial use

ISO 757/1 — General.

ISO 757/2 — Determination of acidity to phenolphthalein — Titrimetric method.

ISO 757/3 — Test for miscibility with water.

ISO 757/4 — Permanganate test (limit test).

ISO 757/5 — Control test with Agulhon's reagent.