

International Standard



754

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Acetic anhydride for industrial use — Methods of test

Anhydride acétique à usage industriel — Méthodes d'essai

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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 754 was developed by Technical Committee ISO/TC 47, *Chemistry*. It results from the combination into one single document of draft International Standard ISO/DIS 754 parts 1 to 10, which were submitted to member bodies in January 1981.

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

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

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

It cancels and replaces ISO Recommendation R 754-1968, of which it constitutes a technical revision.

* Australia disapproved clauses 9 and 13 (formerly parts 2 and 6).

** France disapproved clause 9 (formerly part 2).

*** The Republic of Korea did not vote on clause 16 (formerly part 9).

Acetic anhydride for industrial use — Methods of test

WARNING — Acetic anhydride is a flammable liquid which causes burns; the vapour is toxic and irritant. Avoid breathing the vapour. Prevent contact with eyes and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

1 Scope and field of application

This International Standard gives general instructions and specifies methods of test for the analysis of acetic anhydride for industrial use.

The methods of test relating to acetic anhydride for industrial use are the following :

- Determination of distillation yield
- Determination of bromine number
- Measurement of colour
- Determination of arsenic content
- Determination of acetic anhydride content — Titrimetric method
- Determination of ash — Gravimetric method
- Determination of phosphate content — Molybdo-vanadate spectrometric method
- Determination of permanganate index

- Determination of dichromate index
- Visual limit test for inorganic chlorides
- Visual limit test for inorganic sulphates
- Visual limit test for heavy metals (including iron)
- Sulphuric acid colour test

NOTE — 1,10-Phenanthroline spectrometric methods for the determination of the iron content will be added later.

2 References

ISO 761, *Acetic anhydride and butan-1-ol for industrial use — Determination of bromine number.*

ISO 918, *Liquid chemical products for industrial use — Determination of distillation properties — General method.*¹⁾

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

ISO 2590, *General method for the determination of arsenic — Silver diethyldithiocarbamate photometric method.*

General instructions

3 Sampling²⁾

Place the laboratory sample in a clean, dry and airtight, ground glass stoppered bottle or a screw-capped bottle fitted with an inert plastics cone insert of such capacity that it is almost entirely filled by the sample. If it is necessary to seal the bottle, care shall be taken to avoid contaminating the contents in any way.

NOTE — A sample of not less than 750 ml is necessary for performing all the tests specified for the product.

4 Test report

The test report, for each determination, shall contain the following particulars :

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

1) At present at the stage of draft. (Revision of ISO/R 918.)

2) The sampling of liquid chemical products for industrial use will form the subject of a future International Standard.