UDC 661.725.6 : 536.423 : 542.48

Ref. No. : ISO/R 1845-1970 (E)

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 1845

HIGHER ALCOHOLS FOR INDUSTRIAL USE

DETERMINATION OF DISTILLATION YIELD

1st EDITION

November 1970

Printed in Switzerland

Also issued in French and Russian. Copies to be obtained through the national standards organizations.

BRIEF HISTORY

The ISO Recommendation R 1845, *Higher alcohols for industrial use – Determination of distillation yield*, 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 led to the adoption of Draft ISO Recommendation No. 1845, which was circulated to all the ISO Member Bodies for enquiry in April 1969. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Australia	India	Romania
Austria	Iran	South Africa, Rep. of
Belgium	Israel	Spain
Brazil	Italy	Switzerland
Czechoslovakia	Netherlands	Turkey
France	New Zealand	U.A.R.
Germany	Peru	United Kingdom
Greece	Poland	U.S.S.R.
Hungary	Portugal	

No Member Body opposed the approval of the Draft.

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

ISO Recommendation | R 1845 | November 1970

HIGHER ALCOHOLS FOR INDUSTRIAL USE

DETERMINATION OF DISTILLATION YIELD

1. SCOPE

This ISO Recommendation describes a method for the determination of distillation yield of C_6 to C_{13} alcohols for industrial use.

2. SAMPLING

Follow the principles given in ISO Recommendation R . . .*.

Place the sample in a clean, dry, glass-stoppered bottle of such a size that it is nearly filled up. If it is necessary to seal this bottle, care should be taken to avoid the risk of contamination.

3. PROCEDURE

Use the method described in ISO Recommendation R 918, *Test method for distillation (distillation yield and distillation range).*

The following details, not given in that ISO Recommendation, apply to the particular alcohol under test :

3.1 **Thermometer** (Clause 3.2 of ISO/R 918) of the mercury-in-glass type covering a convenient range.

For alcohols with a distillation interval not greater than 5 °C, graduated at intervals of 0.2 °C and of known scale error, not greater than ± 0.5 °C.

For alcohols with a distillation interval greater than 5 °C, graduated at intervals of 0.5 °C and of known scale error, not greater than the scale interval.

3.2 **Corrections to specified temperatures**

Add to the specified distillation temperature 0.052 $(p - 760)$ °C where p is the barometric pressure in standard millimetres of mercury (see clause 7.2 of ISO/R 918).

3.3 **Distillation**

Proceed as described in clause 6.1 of ISO Recommendation R 918. The interval before the first drop of distillate falls from the end of the condenser should be 15 to 20 minutes.

4. TEST REPORT

The test report should give 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 ISO Recommendation or regarded as optional.

---

* Sampling from the consignment of a chemical product will be the subject of a future ISO Recommendation.

ANNEX

This document forms one of a series of ISO Recommendations on methods of test for C_6 to C_{13} alcohols; the complete list of ISO Recommendations under the general title, *Higher alcohols for industrial use,* is as follows :

ISO/R 1843 *Measurement of colour in Hazen units.*

ISO/R 1844 *Determination of density at 20 °C.*

ISO/R 1845 *Determination of distillation yield.*

ISO/R 1846 *Determination of acidity to phenolphthalein.*

ISO/R 1847 *Determination of carbonyl compounds (Hydroxylammonium chloride potentiometric method).*

ISO/R 1848 *Determination of bromine index in the presence of mercury (II) chloride.*

ISO/R 1849 *Determination of water content by the Karl Fischer method.*

ISO/R 1850 *Determination of total alcohols content (Volumetric method).*

ISO/R 1851 *Determination of ash (Gravimetric method).*

ISO/R 1852 *Test for colour with sulphuric acid.*

NOTE. – A sample of the material not less than 750 ml is necessary to carry out the whole series of tests described in these documents.

Date of the first printing :
December 1970

Price based on 2 pages