H-20-15

INTERNATIONAL STANDARD 1614

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

Glycerines for industrial use — Samples and test methods — General

Glycérines à usage industriel — Échantillons et technique des essais — Généralités

First edition — 1976-02-01

UDC 661.188.1 : 543.05/.06 **Ref. No. ISO 1614-1976 (E)**

Descriptors : polyhydric alcohols, glycerol, samples, test specimens, 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 now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 47 has reviewed ISO Recommendation R 1614 and found it technically suitable for transformation. International Standard ISO 1614 therefore replaces ISO Recommendation R 1614-1970 to which it is technically identical.

ISO Recommendation R 1614 was approved by the Member Bodies of the following countries :

Austria	Hungary	Romania
Belgium	India	South Africa
Brazil	Iran	Spain
Colombia	Israel	Sweden
Cuba	Italy	Switzerland
Czechoslovakia	Japan	Thailand
Egypt, Arab Rep. of	Korea, Rep. of	Turkey
France	Netherlands	United Kingdom
Germany	New Zealand	U.S.S.R.
Greece	Portugal	

No Member Body expressed disapproval of the Recommendation.

No Member Body disapproved the transformation of ISO/R 1614 into an International Standard.

Printed in Switzerland

Glycerines for industrial use — Samples and test methods — General

1 SCOPE

This International Standard provides general prescriptions relative to the treatment of samples and to the test methods for glycerines for industrial use.

2 FIELD OF APPLICATION

The methods specified are applicable to the analysis of crude or distilled glycerines having a glycerol content greater than 75 % (*m/m*).

The methods relate to the following items :

- determination of alkalinity or acidity;
- determination of sulphated ash;
- sampling;
- determination of water;
- determination of ash;
- determination of density at 20 °C (purified glycerine);
- determination of arsenic;
- determination of glycerol.

3 TEST METHODS

The following details are generally applicable to each of the methods specified.

3.1 Laboratory sample and preparation of test sample

3.1.1 If it is intended to carry out all the standard tests, a representative sample of about 500 g must be available.

3.1.2 Since glycerines are very hygroscopic, the sample must be stored away from a humid atmosphere in a hermetically sealed bottle. In order to facilitate homogenization of the sample, it is also advisable to fill the bottle to only two-thirds of its height. In the case of a concentrated glycerine or a glycerine containing suspended matter, the whole of the laboratory sample should be heated to a temperature not exceeding 60 °C and completely homogenized before each sampling.

3.2 Temperature

In the absence of indications to the contrary, all the volumes shall be measured at or calculated for a temperature of 20 °C. The final titrations and reactions of the determinations shall also be carried out at this temperature.

3.3 Solutions and dilutions

3.3.1 Solutions and dilutions shall be made with distilled water or water of equivalent purity.

3.3.2 However, when the method requires the use of water free from carbon dioxide, one of the following three qualities of water shall be used and, after preparation, kept in a place free from atmospheric carbon dioxide, the top of the bottle being connected to a column filled with soda lime :

- demineralized water free from carbon dioxide;
- distilled water boiled for 20 min and then cooled in a carbon dioxide-free atmosphere;
- distilled water through which finely divided air, freed from carbon dioxide by passing it through a soda lime column, is bubbled for 15 min.

3.4 Reagents

Only reagents of recognized analytical reagent grade shall be used, free from the impurity to be determined or having only a negligible content of this impurity.

ANNEX

ISO PUBLICATIONS RELATING TO GLYCERINES FOR INDUSTRIAL USE

ISO 1614 – Samples and test methods – General.

ISO 1615 – Determination of alkalinity or acidity – Titrimetric method.

ISO 1616 – Determination of sulphated ash – Gravimetric method.

ISO 2096 – Methods of sampling.

ISO 2097 – Determination of water content – Karl Fischer method.

ISO 2098 – Determination of ash – Gravimetric method.

ISO 2099 – Determination of density at 20 °C.

ISO 2464 – Calculation of Matter (Organic) Non-Glycerol (MONG).

ISO 2465 – Determination of arsenic content – Silver diethyldithiocarbamate photometric method.

ISO 2879 – Determination of glycerol content – Titrimetric method.