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ISO RECOMMENDATION

R 978

SODIUM HYDROXIDE FOR INDUSTRIAL USE

PREPARATION OF SAMPLE SOLUTION

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BRIEF HISTORY

The ISO Recommendation R 978, *Sodium hydroxide for industrial use – Preparation of sample solution,* 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, in 1966, to the adoption of a Draft ISO Recommendation.

In December 1966, this Draft ISO Recommendation (No. 1087) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Austria	Ireland	South Africa, Rep. of
Belgium	Israel	Spain
Chile	Italy	Switzerland
Cuba	Japan	Thailand
Czechoslovakia	Korea, Dem. P. Rep. of	Turkey
France	Netherlands	U.A.R.
Germany	New Zealand	United Kingdom
Hungary	Poland	U.S.A.
India	Portugal	U.S.S.R.
Iran	Romania	Yugoslavia

No Member Body opposed the approval of the Draft.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in February 1969, to accept it as an ISO RECOMMENDATION.

ISO Recommendation R 978 February 1969

SODIUM HYDROXIDE FOR INDUSTRIAL USE

PREPARATION OF SAMPLE SOLUTION

1. SCOPE

This ISO Recommendation describes a method for the preparation of sample solution of sodium hydroxide for industrial use. This solution will be used for the determination of alkalinity, chloride, sulphate, iron and possibly silica contents (see Note in section 5).

2. PRINCIPLE

Dissolution of a test portion and dilution to a given volume.

3. REAGENTS

Distilled water or water of equivalent purity should be used in the test.

4. APPARATUS

Ordinary laboratory apparatus.

5. PROCEDURE

5.1 Test portion

In a weighing bottle with a ground glass stopper weigh to the nearest 0.01 g a mass of the test sample (solid or liquid)* equivalent to a little less than 50 g of NaOH.

5.2 Preparation of sample solution

5.2.1 *Solid material.* Dissolve the test portion (5.1) in approximately 200 ml of water. Cool to room temperature, transfer the solution quantitatively to a 500 ml one-mark volumetric flask, dilute nearly to the mark, recool to room temperature, then dilute to the mark and mix thoroughly (solution A).

5.2.2 *Liquid material.* Transfer the test portion (5.1) directly to a 500 ml one-mark volumetric flask, dilute nearly to the mark, cool to room temperature, then dilute to the mark and mix thoroughly (solution A).

NOTE. – If it is intended to determine silica, carry out the dissolution of the test portion in a non-siliceous (for example, polyethylene or silver) container. In the case of polyethylene, cool the outside walls with running water so as to prevent softening. Determine the silica as quickly as possible after preparation of the sample solution so as to avoid the glass of the volumetric flask being attacked.

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* See ISO Recommendation R 977, *Sodium hydroxide for industrial use – Preparation and storage of test sample*, clause 2.2.

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