

Methods of

Sampling and test for glycerol —

Part 2: Methods of sampling

[ISO title: Glycerols for industrial use — Methods of sampling]

NOTE It is recommended that this Part of BS 5711 be read in conjunction with the general information given in BS 5711-0 "*General introduction*", issued separately.

UDC 661.188.1:547.426.1:543.05

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National foreword

This Part of BS 5711 is identical with ISO 2096 “*Glycerols for industrial use — Methods of sampling*”.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 8, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

This British Standard, having been prepared under the direction of the Chemicals Standards Committee, was published under the authority of the Executive Board and comes into effect on 30 November 1979

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The following BSI references relate to the work on this standard:
Committee reference CIC/6
Draft for comment 75/53579 DC

ISBN 0 580 10983 6

Amendments issued since publication

Amd. No.	Date of issue	Comments

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1 Scope and field of application

This International Standard describes methods for sampling quantities of glycerol, either crude or refined, for industrial use, in the course of filling (see section 4), or already contained in drums (see section 5) or in transportable or fixed tanks (see section 6).

2 General principles

2.1 The preparation of a representative sample presents particular difficulties owing to the frequent heterogeneity of the lots. This can lead either to sedimentation of the solids in suspension in the case of crude glycerols, or the stratification in layers of different densities in the course of storage, particularly if the glycerol has frozen after filling into drums or tanks and has then thawed.

2.2 It is consequently recommended to adopt, as far as possible, a procedure of sampling during filling (section 4) or, at least, to carry out the sampling of the lots immediately after this operation, while the product is still homogeneous.

2.3 If glycerol that has been stored for some time is to be sampled, one of the methods described in this International Standard shall be chosen, according to the container in which the product has been stored and the details supplied as to its condition by several samples taken from different locations.

2.4 It is customary to divide the composite sample into at least three portions, each being stoppered and sealed by the sampler. One portion is for the purchaser, one for the vendor and one is kept for an independent analysis in case of dispute.

3 Particular precautions

3.1 In view of the very hygroscopic nature of glycerol, it is essential that samples shall at all times be protected from humidity and humid air. The containers used for mixing and storage shall be airtight and kept closed between filling and between the taking of various samples. As far as possible, sampling shall be carried out under cover, the containers particularly being protected from rain and all other accidental pollution.

3.2 The laboratory samples shall be poured into flasks of chemically resistant glass closed with ground glass stoppers. In certain cases these flasks may be closed with a screw cap closure having a polyethylene or aluminium liner. The flasks intended for laboratories shall be sealed by the responsible sampler with the aid of sealing wax.

3.3 In the case of samples containing a deposit or suspended material the containers shall be filled to only two-thirds of their capacity in order to aid mixing. Otherwise the containers shall be completely filled.

3.4 All the apparatus and containers shall be clean and dry at the time of use.

4 Methods of sampling glycerols during filling

4.1 Intermittent sampling method

4.1.1 Principle

Successive samplings, at regular intervals, of equal quantities throughout filling. Mixing of these successive samples, homogenization and then taking the laboratory samples.

4.1.2 Apparatus

4.1.2.1 Sampling can, with handle, capacity 300 to 500 ml, of brass or, for refined glycerols, of stainless steel.

4.1.2.2 Cylindrical container, of suitable capacity, of the same material as the can (4.1.2.1) or, preferably, of glass and fitted with a lid making it airtight. This container is used for holding and mixing the successive samples taken.

4.1.3 Procedure

Determine the number of samples to be taken and the time interval between successive samplings, according to the quantity of product and the rate of flow in filling.

Take the product at the discharge end of the filling pipe by means of the can (4.1.2.1), spacing the samplings as uniformly as possible.

Before each sampling rinse the can (4.1.2.1), after it has been inverted and allowed to drain, with the glycerol to be sampled. Place the successive samples together in the container (4.1.2.2), keeping it closed between each addition.

Mix the whole sample rapidly with the aid of a stainless steel palette knife or, **preferably**, by rotating the **closed** container on its side, about its axis. Take the laboratory samples and immediately bottle them in quantities of about 500 g, taking the precautions described in 3.2, 3.3 and 3.4.

4.2 Continuous sampling method

4.2.1 Principle and field of application

Taking an aliquot part by allowing a constant proportion of the product to flow through a special device fitted to the filling pipe. Mixing and taking the laboratory samples.

This procedure is applicable only to glycerols free from materials in suspension.