

Methods of test for
Desiccants —

**Part 1: Sampling, and preparation and
storage of test samples**

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Chemicals Standards Policy Committee (CIC/-) to Technical Committee CIC/2, upon which the following bodies were represented:

Chemical Industries Association
 Ministry of Defence
 Royal Society of Chemistry
 Society of British Aerospace Companies Limited
 Society of Environmental Engineers

This British Standard, having been prepared under the direction of the Chemicals Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 31 July 1991

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The following BSI references relate to the work on this standard:
 Committee reference CIC/2
 Draft for comment 90/55561 DC

ISBN 0 580 19687 9

Amendments issued since publication

Amd. No.	Date	Comments

Contents

	Page
Committees responsible	Inside front cover
Foreword	ii
<hr/>	
1 Scope	1
2 Definition	1
3 Sampling	1
4 Method for preparation of the aqueous extract	1
5 Method for preparation of the dried sample	1
6 Marking of the containers	1
<hr/>	
Publication(s) referred to	Inside back cover
<hr/>	

Foreword

This Part of BS 3482 has been prepared under the direction of the Chemicals Standards Policy Committee. This revision of BS 3482 comprises Part 1, which describes procedures for sampling and preparation and storage of test samples, and a number of Parts describing methods of test for desiccants. This revision supersedes BS 3482:1962 which is withdrawn. It differs from the BS 3482:1962 in that individual methods have been published in separate Parts and have been generally updated. Some additional methods not included in BS 3482:1962 have also been incorporated.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 and 2, 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.

1 Scope

This Part of BS 3482 describes methods for the sampling, and preparation and storage of test samples for analysis by the methods described in BS 3482-2 to BS 3482-11.

NOTE The titles of the publications referred to in this standard are listed on the inside back cover.

2 Definition

For the purposes of this British Standard the following definition applies.

laboratory sample

representative sample taken from one batch and contained in an airtight container of such a capacity that it is nearly filled by the sample

3 Sampling

Sampling shall be carried out in accordance with BS 5309-1 and BS 5309-4.

4 Method for preparation of the aqueous extract

4.1 Principle

An aqueous extract is obtained by boiling a portion of the laboratory sample under reflux for 2 h in water.

4.2 Apparatus

4.2.1 *Ordinary laboratory apparatus* is required.

4.3 Reagents

4.3.1 *Water*, complying with grade 3 of BS 3978, freshly boiled and cooled.

4.4 Procedure

Weigh 50 ± 0.5 g of a laboratory sample into a 1 L flask and add 500 mL of water (4.3.1). Heat under reflux for 2 h using an electric heating mantle to reduce the risk of "bumping". Allow the flask to cool to room temperature avoiding contamination from atmospheric impurities. Stopper or seal the flask as soon as it is cool and retain for use.

5 Method for preparation of the dried sample

5.1 Principle

A portion is placed in an air circulating oven and heated under specified conditions.

5.2 Apparatus

5.2.1 *Ordinary laboratory apparatus* and the following are required.

5.2.2 *Oven, air circulating and ventilated*, capable of maintaining the temperature specified in the desiccant product standard within a tolerance of 2.5 °C.

5.2.3 *Desiccator*, containing anhydrous phosphorus pentoxide.

5.3 Procedure

Transfer 75 g of the laboratory sample to a clean dish with cover or a weighing bottle with ground glass lid. Remove the cover or lid and transfer to the oven (5.2.2) at the temperature and for the time specified in the desiccant product standard. Replace the cover or lid, transfer to the desiccator (5.2.3) and allow to cool before use.

6 Marking of the containers

The containers of laboratory sample, aqueous extract (clause 4) and dried sample (clause 5) shall bear labels or marks stating the following.

- a) A complete identification of the sample.
- b) The name of the product.
- c) The origin of the product, i.e. batch no., bag no., etc.
- d) The nature of the sample, i.e. laboratory sample, aqueous extract or dried sample.
- e) The date of preparation.

Publication(s) referred to

- BS 3482, *Methods of test for desiccants.*
- BS 3482-2, *Determination of moisture content.*
- BS 3482-3, *Determination of pH.*
- BS 3482-4, *Determination of water-soluble chlorides content.*
- BS 3482-5, *Determination of water-soluble sulphates content.*
- BS 3482-6, *Determination of adsorptive capacity.*
- BS 3482-7, *Determination of particle size.*
- BS 3482-8, *Estimation of ammonia and ammonium compounds content.*
- BS 3482-9, *Determination of cobalt chloride content.*
- BS 3482-10, *Determination of bulk density (dry basis).*
- BS 3482-11, *Determination of friability and dust content.*
- BS 3978, *Specification for water for laboratory use.*
- BS 5309, *Methods for sampling chemical products.*
- BS 5309-1, *Introduction and general principles.*
- BS 5309-4, *Sampling of solids.*

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