

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

© BSI 07-1999

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
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
Publication(s) referred to	Inside back cover

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 This revision supersedes BS 3482:1962 which is withdrawn.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.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

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.*

BSI — British Standards Institution

BSI is the independent national body responsible for preparing British Standards. It presents the UK view on standards in Europe and at the international level. It is incorporated by Royal Charter.

Revisions

British Standards are updated by amendment or revision. Users of British Standards should make sure that they possess the latest amendments or editions.

It is the constant aim of BSI to improve the quality of our products and services. We would be grateful if anyone finding an inaccuracy or ambiguity while using this British Standard would inform the Secretary of the technical committee responsible, the identity of which can be found on the inside front cover. Tel: 020 8996 9000. Fax: 020 8996 7400.

BSI offers members an individual updating service called PLUS which ensures that subscribers automatically receive the latest editions of standards.

Buying standards

Orders for all BSI, international and foreign standards publications should be addressed to Customer Services. Tel: 020 8996 9001. Fax: 020 8996 7001.

In response to orders for international standards, it is BSI policy to supply the BSI implementation of those that have been published as British Standards, unless otherwise requested.

Information on standards

BSI provides a wide range of information on national, European and international standards through its Library and its Technical Help to Exporters Service. Various BSI electronic information services are also available which give details on all its products and services. Contact the Information Centre. Tel: 020 8996 7111. Fax: 020 8996 7048.

Subscribing members of BSI are kept up to date with standards developments and receive substantial discounts on the purchase price of standards. For details of these and other benefits contact Membership Administration. Tel: 020 8996 7002. Fax: 020 8996 7001.

Copyright

Copyright subsists in all BSI publications. BSI also holds the copyright, in the UK, of the publications of the international standardization bodies. Except as permitted under the Copyright, Designs and Patents Act 1988 no extract may be reproduced, stored in a retrieval system or transmitted in any form or by any means – electronic, photocopying, recording or otherwise – without prior written permission from BSI.

This does not preclude the free use, in the course of implementing the standard, of necessary details such as symbols, and size, type or grade designations. If these details are to be used for any other purpose than implementation then the prior written permission of BSI must be obtained.

If permission is granted, the terms may include royalty payments or a licensing agreement. Details and advice can be obtained from the Copyright Manager. Tel: 020 8996 7070.