BRITISH STANDARD

BS 4427-4: 1969

Methods of test for

Sodium tripolyphosphate (*penta* sodium triphosphate) and sodium pyrophosphate (*tetra* sodium pyrophosphate) —

Part 4: Determination of loss on ignition

Confirmed December 2011

Co-operating organizations

The Chemicals Industry Standards Committee, under whose authority this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:

Board of Trade
British Steel Industry
Chemical Industries Association*
Department of Health & Social Security
Fertiliser Manufacturers' Association Ltd.*
Gas Council
Institution of Gas Engineers
Ministry of Technology. Laboratory of the Government Chemist*
National Sulphuric Acid Association
Royal Institute of Public Health & Hygiene

The industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the formulation of the United Kingdom point of view in the international work leading to the publication of this British Standard:

British Pharmacopoeia Commission
Flour Milling and Baking Research Association
Institute of Metal Finishing
National Association of Soft Drink Manufacturers
Society for Water Treatment and Examination
Textile Institute

This British Standard, having been approved by the Chemicals Industry Standards Committee, was published under the authority of the Executive Board on
28 February 1969

The following BSI reference relates to the work on this standard:
Committee reference CIC/25

ISBN 580 05436 5

Amendments issued since publication

Amd. No.	Date	Comments

Contents

Foreword

For some years the United Kingdom has participated in the work of preparing methods of test for sodium tripolyphosphate and sodium pyrophosphate for industrial use, carried out within Working Group 7 of Technical Committee 47 — Chemistry, of the International Organization for Standardization (ISO). As international agreement is reached on the methods, it is proposed to publish them as parts of this British Standard.

This part is technically identical with ISO Recommendation R 853, "*Sodium tripolyphosphate and sodium pyrophosphate for industrial use. Determination of loss on ignition*".

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 4427 describes a method for the determination of loss on ignition of sodium tripolyphosphate and sodium pyrophosphate for industrial use.

2 Principle

The principle of this method of test is ignition at 550 ± 25 °C to constant mass.

3 Apparatus

Ordinary laboratory apparatus with the following shall be used:

3.1 *Porcelain crucible,* approximately 25 mm in diameter.

3.2 *Electric furnace,* regulated at 550 ± 25 °C.

4 Procedure

4.1 Test portion. Weigh to the nearest milligramme, approximately 5 g of the test sample, into the porcelain crucible (**3.1**) previously ignited at 550 °C, cooled in a desiccator and weighed.

4.2 Determination. Place the crucible containing the test portion (**4.1**) in the furnace (**3.2**), start heating and progressively raise the temperature to 550 ± 25 °C. Maintain it at this temperature for about 1 h. Then remove the crucible from the furnace and place it in a desiccator. Weigh after cooling. Repeat the heating to 550 ± 25 °C to constant mass.

5 Expression of results

Loss on ignition expressed as a percentage by mass, is given by the following formula:

$$\frac{m_1 - m_2}{E} \times 100$$

where m_1 is the mass, in grammes, of crucible and test sample before ignition,

m_2 is the mass, in grammes, of crucible and test sample after ignition,

E is the mass, in grammes, of the test portion.

6 Test report

State the following in the report:

1) the reference of the method used,

2) the results and the method of expression used,

3) any unusual features noted during the determination,

4) any operation not included in this standard or regarded as optional.

blank

British Standards

The following are available on application:
YEARBOOK
Including subject index and numerical list of British Standards 15*s*.
SECTIONAL LISTS. Gratis
Acoustics (SL 10)
Aerospace materials and components (SL 25)
Automobile (SL 34)
British Standard Handbooks (SL 27)
Building (SL 16)
Chemical engineering (SL 5)
Chemicals, fats, glues, oils, soap, etc. (SL 4)
Cinematography and photography (SL 1)
Coal, coke and colliery requisites (SL 13)
Codes of Practice (SL 8)
Consumer goods (SL 3)
Documentation, including Universal Decimal Classification (SL 35)
Drawing practice (SL 37)
Electrical Engineering (SL 26)
Farming, dairying and allied interests (SL 31)
Furniture, bedding and furnishings (SL 11)
Gardening, horticulture and landscape work (SL 41)
Gas and solid fuel and refractories (SL 2)
Glassware, excluding laboratory apparatus (SL 39)
Heating, ventilating and air conditioning (SL 42)
Hospital equipment (SL 18)
Illumination and lighting fittings (SL 14)
Industrial instruments, etc. (SL 17)
Iron and steel (SL 24)
Laboratory apparatus (SL 23)
Leather, plastics, rubber (SL 12)
Local authority purchasing officers' guide (SL 28)
Machine tools (SL 20)
Mechanical engineering (SL 6)
Nomenclature, symbols and abbreviations (SL 29)
Non-ferrous metals (SL 19)
Nuclear energy (SL 36)
Packaging and containers (SL 15)
Paints, varnishes, paint ingredients and colours for paints (SL 9)
Personal safety equipment (SL 30)
Petroleum industry (SL 38)
Printing and stationery, paper and board (SL 22)
Road engineering (SL 32)
Shipbuilding (SL 40)
Textiles and clothing (SL 33)
Welding (SL 7)

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

BSI
389 Chiswick High Road
London
W4 4AL