

**SS 231:2013(2022)+A1:2022**  
(ICS 71.100.40)

**SINGAPORE STANDARD**

# **Specification for laundry detergent powder for household use in manual washing**

Incorporating Amendment No. 1

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**SS 231:2013(2022)+A1:2022**  
(ICS 71.100.40)

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**Specification for laundry detergent powder for  
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## Foreword

This Singapore Standard was prepared by the Working Group on Fast Moving Consumer Goods (FMCG) set up by the Technical Committee on Chemistry under the purview of the Chemical Standards Committee.

Although laundry detergent powder can be of the anionic, cationic or non-ionic type, the specification only covers the anionic and non-ionic type which is used widely.

*As amended,  
Apr 2022*

Besides specifying the detergent to be of the anionic type, the standard also prescribes that the anionic surface active agents (surfactants) shall be biodegradable.

In preparing this standard, reference was made to the following publications:

- |    |  |  |
|----|--|--|
| 1. | 2012 Annual Books of ASTM  | Volume 15.04 – Soaps and other detergents  |
| 2. | Canadian Government<br>Specifications Board Standard<br>CAN/CGSB-2.115-95 (Aug 1995)           | Built powder laundry detergent   |
| 3. | Indian Standard 4955 : 2001  | Household laundry detergent powders (fourth revision)  |
| 4. | South African Bureau of Standards<br>SANS 650 : 2008   | Laundry detergent (for use in non-automatic domestic washing machines)   |
| 5. | ISO 607: 1980  | Analysis of formulated detergents. Methods of sample division  |
| 6. | ISO 2271:1989  | Surface active agents – Detergents – Determination of anionic-active matter by manual or mechanical direct two-phase titration procedure |
| 7. | ISO 4313 – 1976 (E)  | Washing powders – Determination of total phosphorus (V) oxide content – Quinoline phosphomolybdate gravimetric method                    |
| 8. | EC Regulation No 648/2004 of the<br>European Parliament and of the<br>Council of 31 March 2004 | Detergents   |

Acknowledgement is made for the use of information from the above references.

Annexes B and C of this standard were extracted with permission from the Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents – Annex II and Annex III, respectively.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all such patent rights.

**NOTE**

1. *Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions. Where SSs are deemed to be stable, i.e. no foreseeable changes in them, they will be classified as “mature standards”. Mature standards will not be subject to further review unless there are requests to review such standards.*
2. *An SS or TR is voluntary in nature except when it is made mandatory by a regulatory authority. It can also be cited in contracts making its application a business necessity. Users are advised to assess and determine whether the SS or TR is suitable for their intended use or purpose. If required, they should refer to the relevant professionals or experts for advice on the use of the document. Enterprise Singapore and the Singapore Standards Council shall not be liable for any damages whether directly or indirectly suffered by anyone or any organisation as a result of the use of any SS or TR. Although care has been taken to draft this standard, users are also advised to ensure that they apply the information after due diligence.*
3. *Compliance with a SS or TR does not exempt users from any legal obligations.*

# Specification for laundry detergent powder for household use in manual washing

## 1 Scope

This standard covers the requirements and methods of sampling and testing for synthetic powder detergents for household washing of laundry by hand.

## 2 Normative references

The following referenced documents are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

|           |   |
|-----------|---|
| BS 1647-1 | pH measurement. Specification for pH scale  |
| BS 1752   | Specification for laboratory sintered or fritted filters including porosity grading |