



## **STANDARDS ASSOCIATION OF ZIMBABWE**

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ZIMBABWE STANDARD FOR

SURFACE ACTIVE AGENTS - WASHING POWDERS -  
DETERMINATION OF APPARENT DENSITY - METHOD  
BY MEASURING THE MASS OF A GIVEN VOLUME

This draft is now available for **public comment**. Your views and technical comments on it would be appreciated. If you have no specific comments to make but find it generally acceptable it would be helpful if you would notify us accordingly. Suggestions entailing revisions of the text should indicate the preferred wording using the attached template. The relevant clause number should be quoted against any comment.

All comments should be sent to the Committee Secretary **Mr K. Dzapasi** at the address shown below.

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**THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A ZIMBABWE STANDARD.**



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## **National Foreword**

This Zimbabwe Standard ZWS ISO 697: Surface active agents - Washing powders - Determination of apparent density - Method by measuring the mass of a given volume, is identical to the second edition of the International Standard ISO 697 published in March 1981 (confirmed 2016).

This standard is being approved by Technical Committee CH 001: Chemicals, under the general guidance of the Chemicals Standards Council.

## **Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

# Surface active agents — Washing powders — Determination of apparent density — Method by measuring the mass of a given volume

## 0 Introduction

The apparent density of a powder can be evaluated either by measuring the mass which occupies a given volume, or by measuring the volume occupied by a given mass. In both cases, the procedure involves transfer of the powder from its original container to that used for the measurement. Owing to the friability of the product, to its flow or caking properties, to the varying geometry of particles of which it is composed, and to the unavoidable compaction resulting from pouring into the container for measurement, the apparent density determined will generally differ from that of the product in its original container or package.

The result of the determination, therefore, gives only a conventional value related to the method used.

## 1 Scope

This International Standard specifies a method for the determination of the apparent density of washing powders by measuring the mass of a given volume.

## 2 Field of application

The method is applicable to free flowing powders and, provided that an appropriate funnel is used, to powders which have a tendency to cake.

The method is suitable for other substances in the form of powder or granules.

In the case of powder containing lumps, the method is applicable only if these can be disintegrated readily without breaking down the particles of the powder.

## 3 References

*ISO 607, Surface active agents and detergents - Methods of sample division.*

*ISO 3424, Sodium perborates for industrial use - Determination of bulk density.*

## 4 Definition<sup>1)</sup>

**apparent density:** The mass, in grams, of powder which occupies a volume of one millilitre under standardized conditions.

## 5 Principle

Determination of the mass of powder in a receiver of known dimensions, after filling with the sample from a funnel of specified shape under specified conditions.

## 6 Apparatus

**6.1 Funnel,** made of stainless steel, plastics, wood or other suitable material.

All surfaces in contact with the flowing powder shall be smooth and polished and shall not permit a buildup of an electrostatic charge by the flow of the powder.

