

DRAFT ZANZIBAR NATIONAL STANDARD

Glass cleaner, liquid—Specification

ZANZIBAR BUREAU OF STANDARDS

National foreword

This draft Zanzibar standard has been developed by Chemical Products Standards Technical Committee. In accordance with ZBS general procedures, this draft standard is presented to the public in order to receive any technical and editorial comment concerns.

This draft Zanzibar National Standard is identical to Tanzania Standard, TZS 2262: 2018 Glass cleaner, liquid—Specification

Technical Committee Representatives

This draft Zanzibar National Standard was prepared by Chemical Products Standards Technical Committee which consists of representatives from the following organizations:

Chief Government Chemist Laboratory Agency (CGCLA)
Zanzibar Food and Drugs Agency (ZFDA)
Zanzibar Environment Management Authority (ZEMA)
Ministry of Health (MOH)
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TANZANIA STANDARD

Glass cleaner, liquid—Specification

DRAFT FOR STAKEHOLDERS COMMENT

TANZANIA BUREAU OF STANDARDS

TZS 2262:2018

This Tanzania Standard was published under the authority of the Board of Directors of Tanzania Bureau of Standards on 2018-11-08.

Tanzania Bureau of Standards (TBS) is the statutory national standards body for Tanzania established under the Standards Act No. 3 of 1975 which was repealed and replaced by the Standards Act No. 2 of 2009.

The Chemicals Divisional Standards Committee under whose supervision this standard was prepared consists of representatives from the following organizations:

Department of Chemistry, University of Dar es Salaam
National Environment Management Council (NEMC)
Small Industries Development Organization (SIDO)*
Vice President's Office – Division of Environment
Government Chemist Laboratory Authority (GCLA)*
Mac Medics
Tanzania Industrial Research and Development Organization (TIRDO)*
Confederation of Tanzania Industries (CTI)
Ministry of Industry and Trade
Pharmacy Council of Tanzania
SGS Tanzania Superintendence Company Limited*
Tanzania Food and Drugs Authority (TFDA)

The organizations marked with an asterisk (*) in the above list, together with the following were directly represented on the Technical Committee entrusted with the preparation of this standard:

Pampalano Commercial Processing Laboratory
Soap and Allied Industries Limited
BIDCO Oils and Soap Limited
Catholic University of Health and Allied Sciences (CUHAS)
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Foreword

This Tanzania Standard was developed by the Soap and Detergents Technical Committee under supervision of the Chemicals Divisional Standards Committee and it is in accordance with the procedures of the Bureau.

In the preparation of this Tanzania Standard assistance was drawn from:

IS 8540:2016, *Glass cleaner, liquid*; published by the Bureau of Indian Standards.

In reporting the results of a test or analysis made in accordance with this Tanzania Standard, if the final value observed or calculated is to be rounded off, it shall be done in accordance with TZS 4 (see Clause 2).

DRAFT FOR STAKEHOLDERS COMMENT

Glass cleaner, liquid –Specification

1 Scope

This Tanzania Standard prescribes the requirements, methods of sampling and test for glass cleaner, liquid.

This Tanzania Standard is applicable for the glass cleaner liquid intended primarily for use on wind shields, windows, doors, globes, shells, tableware, glass mirrors, and the surfaces of other glassware/products. It is not intended for use on transparent plastic surfaces and laboratory glassware.

2 Normative references

The following referenced documents are indispensable for the application of this document. The latest edition of the referenced document (including any amendments) applies.

ASTM D-56, *Standard Test Method for Flash Point by Tag Closed Cup Tester*

TZS 4, *Rounding off numerical values*

TZS 59/ISO 3696, *Water for analytical laboratory use — Specification and test method*

TZS 646/ISO 4316, *Surface-active agents — Determination of pH of aqueous solutions — Potentiometric method*

TZS 649/ISO 4317, *Surface-active agents and detergents — Determination of water content — Karl Fischer method*

3 Requirements

3.1 General requirements

3.1.1 The cleaner shall be a clear and homogenous liquid or a suitable suspension of solid matter in the medium and shall acquire homogeneity on shaking.

3.1.2 The cleaner shall not have any objectionable odour.

3.1.3 The cleaner may be tinted in suitable stable colour.

3.1.4 The cleaner shall not impart stain to glass surfaces.

3.1.5 The cleaner shall have no injurious effect on human skin and shall be free from toxic ingredients.

3.1.6 The cleaner shall be stable in normal conditions of storage and handling.

3.1.7 The cleaner shall be capable of smooth, uniform and easy application.

3.2 Specific requirements

3.2.1 The applied film shall be easily removable within 3 min to 4 min of application and shall leave the surface clean when tested in accordance with Annex B.

3.2.2 The cleaner shall not produce visible corrosion or discolouration on an aluminium panel, when tested in accordance with Annex C.

3.2.3 The material shall also comply with the requirements given in Table 1 when tested in accordance with the test methods prescribed therein.

Table 1 — Requirements for glass cleaner, liquid

S/N	Characteristic	Requirement	Test method
1	Water content, percentage by mass, max.	88.0	TZS 649/ISO 4317
2	Flash point, °C, min.	27	ASTM D56
3	Non-volatile matters content, percentage by mass, max.	1.0	Annex D

3.3 Shelf life

The liquid glass cleaner shall retain the properties as specified in 3.1 and Table 1 for 2 years from the month and year of manufacture when stored at room temperature.

4 Packaging and labelling

4.1 Packing

4.1.1 The glass cleaner shall be packed in a suitable container that will maintain the quality of the product. It may have an in-built spray device.

4.1.2 The container shall be leak-proof and the spray device, if used, shall be protected against any damage during transit.

4.2 Labelling

Each container shall be legibly and indelibly labelled in Kiswahili and English, and any other language as agreed between the manufacturer and supplier with the following information:

- a) name of the product;
- b) registered trade mark, if any;
- c) net content;
- d) name and address of the manufacturer;
- e) country of origin;
- f) dates of manufacture and expiry/best before use;
- g) code number or batch number;
- h) directions for use and safety precaution;
- i) Indication of acidity and alkalinity; and
- j) Storage condition.

5 Sampling

The method of drawing representative samples of the material and the criteria for conformity shall be as prescribed in Annex A.

6 Quality of reagents

Unless specified otherwise, analytical reagents and distilled water conforming to TZS 59/ISO 3696 shall be used in tests.

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Annex A (Normative)

Sampling of glass cleaner, liquid

A.1 General requirements of sampling

In drawing, preparing, storing and handling of test samples, the following precautions and directions shall be observed:

A.1.1 Samples shall be taken in a place not exposed to dust or soot.

A.1.2 The sampling instrument shall be clean and dry when used.

A.1.3 Precautions shall be taken to protect the samples, the material being sampled, the sampling instrument and the containers for samples from adventitious contamination.

A.1.4 Samples shall be placed in clean, dry and air-tight glass containers or other suitable containers on which the material has no action.

A.1.5 The sample containers shall be of such size that they are almost completely filled up by the sample.

A.1.6 Each sample container shall be sealed air-tight after filling and marked with full details of sampling, the date of sampling and the month and year of manufacture of the material.

A.1.7 Samples shall be stored in such a manner that the temperature of the material does not vary unduly from the normal temperature.

A.2 Scale of sampling

A.2.1 For determining conformity of a consignment to this specification, sample shall be selected so as to be representative of the consignment. Samples drawn in compliance with an agreement between the purchaser and the manufacturer shall be held to be representative of the consignment. In case of dispute, the scheme stipulated below is recommended to serve as guide.

A.2.2 *Lot* - All the containers in a single consignment of the material drawn from the same batch of manufacture and of the same size shall constitute a lot. If a consignment is declared or known to consist of different batches of manufacture or different sizes of containers, the containers belonging to the same batch and size shall be grouped together and each group shall constitute a separate lot. Samples shall be tested for each lot for ascertaining conformity of the material to the requirements of this specification.

A.2.3 The number of containers (n) to be chosen from a lot shall depend upon the size of the lot (N) and shall be in accordance with Table 2.

Table 2 — Number of containers to be selected

Lot size	Number of containers to be selected
N	n
Up to 500	10
501 to 1 000	15
1 001 and above	20

A.2.4 These containers shall be chosen at random from the lot and in order to ensure the randomness of selection, a random number table shall be used. In case such tables are not available, the following procedure shall be adopted:

Arrange all the containers in the lot in a systematic manner and starting from any container, count them as 1, 2, 3,, up to r and so on, where r is the integral part of N/n . Every r^{th} container thus counted shall be withdrawn to give sample for test.

A.3 Preparation of composite sample

Shake well each of the containers selected according to A.2.4 and pour out quantity of liquid such that the total quantity obtained from all the containers provides material sufficient for all the tests (about 500 g). Thoroughly mix the material drawn from the selected containers so as to form composite sample.

A.4 Number of tests and criteria for conformity

A.4.1 Tests for all the characteristics shall be done on the composite sample.

A.4.2 The lot shall be declared as conforming to this specification if the test results satisfy the corresponding requirements laid down in this specification.

Annex B
(Normative)

Test for cleaning efficiency

Procedure

B.1 To test the cleaning and polishing property of the glass cleaner, it is recommended that both sides of the glass panel should be suitably prepared for application of the cleaner.

B.2 Take two panels of clear, plate glass 150 mm x 75 mm x 1.5 mm. Dust them with pulverized clay until a thin uniform coating is obtained. Spray a mist coat of water on each panel to wet the clay and allow to dry for 6 h. Apply a similar coat of clay on the other side of the glass panels. Further apply a mist coat of carbon tetrachloride containing 10 percent mineral oil on both sides of the panels.

B.3 Allow the panels to air dry for 24 h. To one panel, apply the sample by spreading over the surface with a rag and immediately wipe off and polish with a clean cloth. Similarly treat the other side of the panel.

Annex C
(Normative)

Test for corrosion or discolouration

Procedure

Place approximately 3 mL of the sample/cleaner on a cleaned, grease free surface of 75 mm x 50 mm x 1 mm aluminium panel and cover with a watch glass.

At the end of 6 h, remove the watch glass, rinse panel with distilled water and air dry at room temperature. Inspect the panel for any attack or discolouration.

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Annex D (Normative)

Determination of non-volatile matter

D.1 Procedure

Weigh accurately a 50-g sample of the cleaner into a tared glass beaker and heat on a steam bath to dryness. Place the beaker in an oven at 100°C to 105°C and dry to constant mass. (If decomposition or discolouration of the solids occurs, carry out the drying in a vacuum oven at 45°C to 50°C.) Report the mass of the residue as a percentage by mass of the cleaner.

D.2 Calculation

Non-volatile matter, percent by mass = $\frac{B-C}{A-C} \times 100$

where

A = mass, in grams, of the sample taken for test and beaker,

B = mass in, in grams, of the beaker and solids after drying, and

C = mass in, in grams, of the beaker.

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