



DRAFT TANZANIA STANDARD

Methods of sampling and test for crude and refined glycerine
Part 14: Limit test for organic chloride

Draft Standard for Comment Only

TANZANIA BUREAU OF STANDARDS

Foreword

This Draft Tanzania Standard was prepared under the direction of Cosmetics and Cremeries Technical Committee, which is under the supervision of Chemicals Divisional Standards Committee.

For the purpose of deciding whether a particular requirement of this Tanzania Standard is complied with, the final value, observed or calculated, expressing the result of a test or an analysis, shall be rounded off in accordance with TZS 4 (see clause 2).

This second edition cancels and replaces the first edition (TZS 1199-14:2015), which has been technically revised.

Methods of sampling and test for crude and refined glycerine

Part 14: Limit test for organic chloride

1 Scope

This Draft Tanzania Standard describes a turbidimetric limit test for organic chloride in crude and refined glycerine.

2 Normative references

The following referenced documents are indispensable for the application of this Tanzania Standard:

TZS 1199-2, *Crude and refined glycerine — Methods of sampling and test Part 2: Methods of sampling*

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

3 Principle

Hydrolysis of organic chloride in a test portion, development of turbidity with acidified silver nitrate solution and visual comparison of test and control solutions.

4 Reagents

The reagents shall be of recognized analytical grade. Distilled water complying with the requirements of TZS 59/ISO 3696 (see clause 2) or water of at least equal purity shall be used.

4.1 Morphine

4.2 Nitric acid, concentrated, 70 % (m/m) (16 M).

4.3 Silver nitrate, 0.01 M standard volumetric solution.

4.4 Hydrochloric acid, 0.01 M standard volumetric solution.

5 Apparatus

5.1 Nessler cylinders 50 mL.

5.2 Flasks, round bottomed, 100 mL and fitted with ground glass necks.

5.3 Condenser, water-cooled, with a conical joint to fit the flask (see clause 5.2).

6 Sampling

Prepare the laboratory sample as described in part 2 of this Tanzania Standard.

7 Procedure

Weigh, to the nearest 0.01 g, of the sample into a dry flask (see 5.2), add 15 mL of the morpholine (see 4.1), fit the reflux condenser (see 5.3) and boil the mixture gently for 3 h in a fume cupboard. Cool, rinse the condenser with 10 mL of water, collecting the rinsings in the flask, remove the condenser and cautiously acidify the solution with the nitric acid (see 4.2). Cool transfer the mixture to a Nessler cylinder (see 5.1), add 5 mL of the silver nitrate solution (see 4.3), dilute to the mark with water and mix thoroughly. To a second Nessler cylinder add 10 mL of water and 15 mL of the morpholine (see 4.1), cautiously acidify with the nitric acid, cool, add 4 mL of the hydrochloric acid solution (see 4.4) and 5 mL of the silver nitrate solution (see 4.3), dilute to the mark and mix. This is the matching solution corresponding to 28 mg/kg of chloride.

Compare the turbidity of the solutions visually.

NOTE – It is advisable that all tests should be carried out in duplicate.

8 Test report

8.1 Report whether the test solution is more or less turbid than the matching solution.

8.2 The test report shall include the following particulars:

- a) a reference to this Tanzania Standard;
- b) the result and the method of expression used;
- c) any unusual features noticed during the determination;
- d) any operation not included in this Tanzania Standard or regarded as optional.

Bibliography

TZS 1199-14:2015 *Methods of sampling and test for crude and refined glycerine Part 14: Limit test for organic chloride*

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