



DRAFT TANZANIA STANDARD

Honey - Determination of acidity (Titrimetric Method)

DRAFT STANDARD FOR PUBLIC COMMENTS ONLY

TANZANIA BUREAU OF STANDARDS

0. Foreword

This draft Tanzania standard prescribes the titrimetric method for the determination of acidity in Honey.

In the preparation of this draft Tanzania standard assistance was derived from AOAC 962.19 Acidity (Free, Lactone and Total) of Honey.

In reporting the result of a test or analysis made in accordance with this standard, if the final value observed or calculated, is to be rounded off, it shall be done in accordance with TZS 4

1. Scope

This draft standard specifies the method for determination of acidity of honey by titrimetric method

2. Normative references

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

TZS 4, rounding off numerical values

TZS 59, Water - Distilled quality – Specification

3. Apparatus

3.1. Burette

3.2. pH meter

3.3. Beaker

3.4. Conical flask

3.5. Measuring cylinder

3.6. Analytical balance

4. Reagents

4.1. *Sodium hydroxide 0.1 N (carbonate-free)*

4.2 *Phenolphthalein indicator 1 percent (m/v) in ethanol, neutralized*

4.3 *Distilled water made carbon dioxide free by boiling and subsequent cooling*

5. Procedure

5.1 *Preparation of test sample*

Honey (10.0g) is weighed accurately and dissolved in 75ml distilled water (4.3).

5.2 *Titration*

The test sample is titrated against carbonate-free 0.1N sodium hydroxide solution using 4-5 drops of neutralized phenolphthalein indicator. The end-point colour should persist for 10 seconds. For darkly-coloured samples, a smaller weight should be taken. As an alternative, a pH meter may be used and the sample titrated to pH 8.3.

6. Calculation and expression of results

The result is expressed as millival (milliequivalent) acids/kg honey and is calculated as follows:

$$\text{Acidity} = 10 v$$

Where

v = the number of ml 0.1N NaOH used in the neutralization of 10g honey.

Acidity (as formic acid), percent by mass

$$= \frac{0.23 \times V}{m}$$

Where

V = volume of ml of 0.1N NaOH used in the neutralization of the test sample.

m = mass in g of the sample taken from the test.