



## **DRAFT TANZANIA STANDARD**

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**Milk, milk products, infant formula and adult nutritionals -  
Determination of minerals and trace elements - Inductively  
coupled plasma mass spectrometry (ICP-MS) method**

Draft for Stakeholders Comments

**TANZANIA BUREAU OF STANDARDS**

## 0 NATIONAL FOREWORD

**0.1** The Tanzania Bureau of Standards is the statutory national standards body for Tanzania, established under the Act.No.3 of 1975, amended by Act.No of 2009.

This draft Tanzania standard is being prepared by the Nutrition and Foods for Special Dietary Uses Technical Committee, under the supervision of the Food and Agriculture Divisional Standards Committee (AFDC).

This draft Tanzania Standard is the identical adoption of ISO 21424:2018 Milk, milk products, infant formula and adult nutritionals - Determination of minerals and trace elements - Inductively coupled plasma mass spectrometry (ICP-MS) method published by International Organization for Standardization.

### 0.2 Terminology and conventions.

The text of the International standard is hereby being recommended for approval without deviation for publication as draft Tanzania standard.

Some terminology and certain conventions are not identical with those used as Tanzania Standard; attention is drawn to the following:

The comma has been used as decimal marker or metric dimensions. In Tanzania, its current practice to use a full point on the baseline as decimal marker.

Whenever the words "International Standard" appear, referring to this draft standard, they should read as "Tanzania Standard".

### 0.3 Scope

This document specifies a method for the quantitative determination of calcium (Ca), copper (Cu), iron (Fe), magnesium (Mg), manganese (Mn), phosphorus (P), potassium (K), sodium (Na), zinc (Zn), chromium (Cr), molybdenum (Mo) and selenium (Se) using inductively coupled plasma and mass spectrometry (ICP-MS). The method is applicable for the determination of all 12 elements in infant formula and adult nutritional products.

The method is also applicable for milk, milk powder, whey powder, butter and cheese excluding the determination of Cr, because all Cr results were below the quantification limit and reproducibility could not be determined in these matrices[1]. The present method is an extension of ISO 20649 | IDF 235 (AOAC 2011.19[2]) which was validated only for Cr, Mo and Se in infant formula and adult nutritional products.