

(PREVIEW)

Indian Standard

MILK AND MILK PRODUCTS DETERMINATION OF NITRATE AND NITRITE CONTENTS

PART 1 METHOD USING CADMIUM REDUCTION AND FLOW INJECTION ANALYSIS WITH IN-LINE DIALYSIS (ROUTINE METHOD)

1 Scope

This part of ISO 14673/IDF 189 specifies a method for the determination of the nitrate and nitrite contents of milk and milk products by cadmium reduction and flow injection analysis (FIA). The method is applicable to hard, semi-hard and soft cheeses of various ages, and processed cheese. The detection limits of the method are 0.8 mg of nitrate ions per kilogram and 1.0 mg of nitrite ions per kilogram.

The method is also applicable to whey powder, milk powder and milk-based infant food.

NOTE 1 The method closely resembles the FIA method described in reference (2) for the determination of nitrate in milk and fluid dairy products. Adaptations were made to allow for the analysis for cheese and to obtain sufficient sensitivity for the determination of low levels of nitrite in cheese and milk-based infant foods.

NOTE 2 For determination of nitrite and following cadmium reduction, use is made of the same colour reaction as described in ISO 14673-1/IDE 189-1

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.

ISO 1042, *Laboratory glassware — One-mark volumetric flasks*

ISO 14673-1/IDF 189-1, *Milk and milk products — Determination of nitrate and nitrite contents — Part 1 Method using cadmium reduction and spectrometry.*