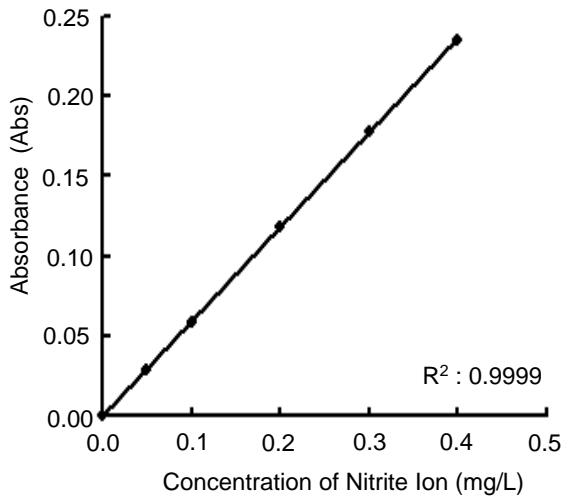


Analysis of Nitrite ion in Ham

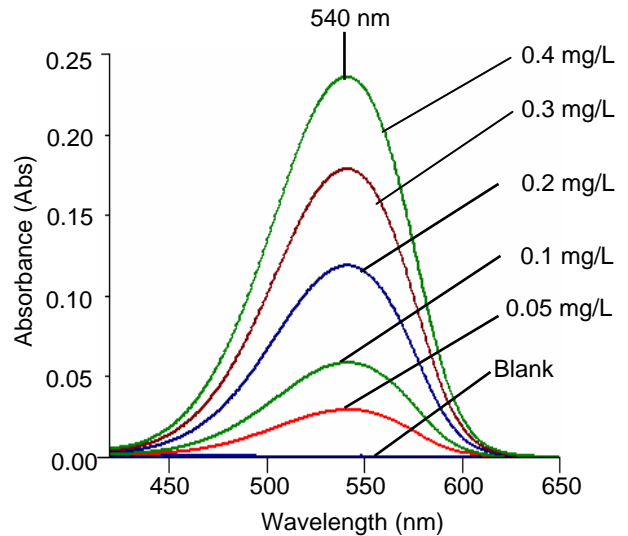
INTRODUCTION

Sodium nitrite, one of color formers, is used in ham and sausages and it is shown as “color former (NaNO₂)” in food labels. It is effective to give a color to make ham look good and has other effects such as food poisoning prevention. As a result of the assay for the nitrite ion in ham, 0.002 g/kg was found indicating that the level was less than the standard specified by the Food Sanitation Law (Meat products: 0.07 g/kg).

| Method | PREPARATION |
|--|---|
| Analyte : Nitrite ion (NO ₂ ⁻) Analysis method: In accordance with the Food Sanitation Inspection Guidelines, Food Additive Volume 2003 Assay range : 0.01 - 1.0 mg/L | Refer to the next page (Sheet No. UV090013-02). |
| INSTRUMENT CONDITIONS | |
| INSTRUMENT : U-1900 WORKING CURVE SCAN SPEED : 400 nm/min WAVELENGTH : 540 nm BANDPASS : 4 nm | |



Calibration Curve of Nitrite Ion



Absorbance Spectrum of Nitrite Ion

Addition Recovery Test

| Ham solution(*) | Ham solution + 0.1 mg/L | Recovery |
|------------------|-------------------------|--------------|
| 0.109±0.002 mg/L | 0.205±0.001 mg/L | 95.8 %±0.0 % |

n = 3, * The solution prepared using 5 g of ham by making up to 100 mL according to the procedure was used for the measurement.

KEY WORDS

Bio-Medical Science·Food·Pharmaceutical, Food, Nitrite Ion, Absorbance Spectrum, Calibration Curve, Food Chemistry, Food Component, Ham, Food Additive, Meat Product, Color Former, 10 mm Cell, UV, U-1900, U-2900, U-2910, U-3900, U-3900H, U-1800, U-2800, U-3010, U-3310

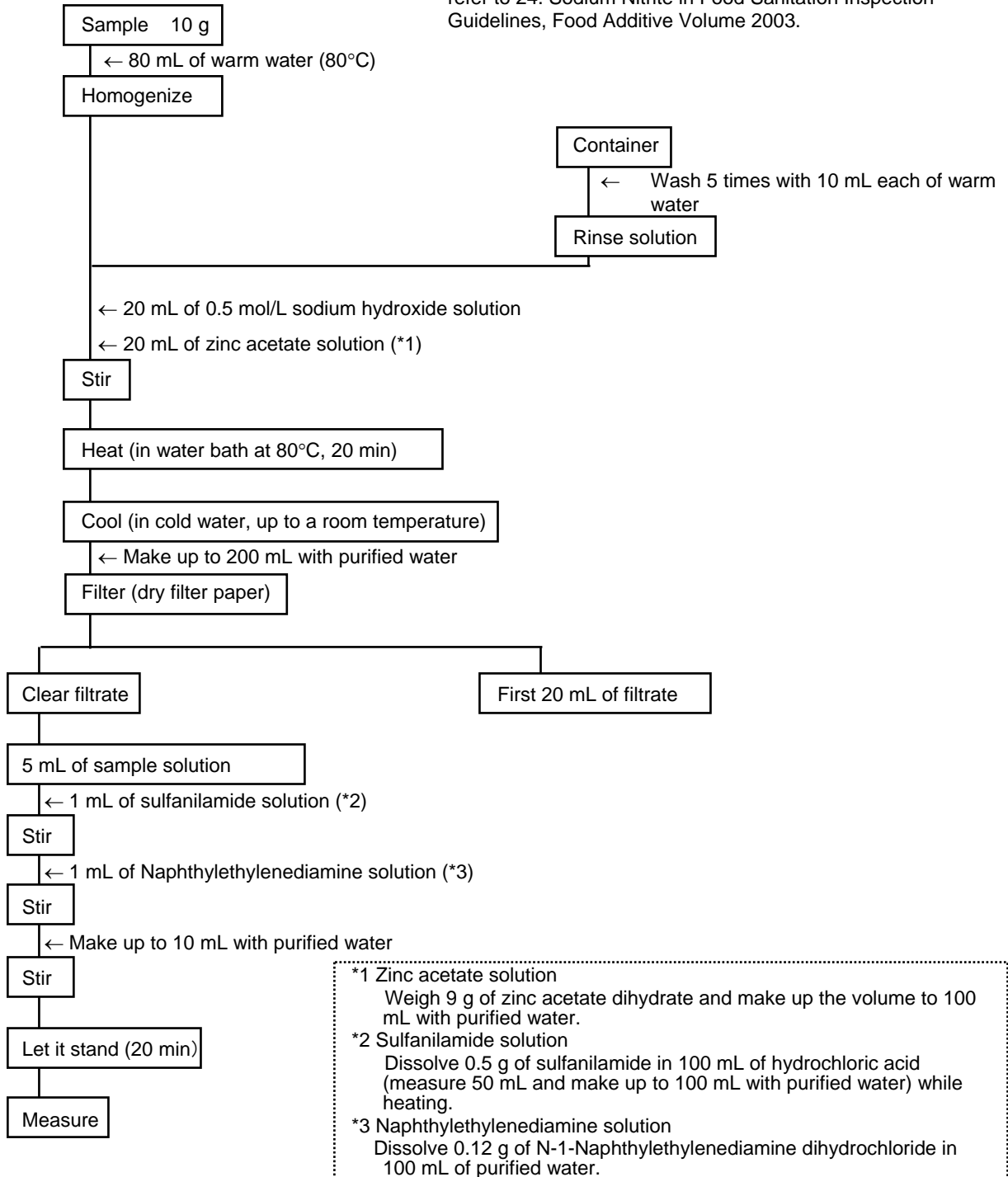
Spectrophotometer (UV)

Sheet No. UV090013-01

Pretreatment for Analysis of Nitrite ion

[Preparation Method for Sample Solution]

For the detailed solution preparation and analysis methods, refer to 24. Sodium Nitrite in Food Sanitation Inspection Guidelines, Food Additive Volume 2003.



KEY WORDS

Bio-Medical Science • Food • Pharmaceutical, Food, Nitrite Ion, Absorbance Spectrum, Calibration Curve, Food Chemistry, Food Component, Ham, Food Additive, Meat Product, Color Former, 10 mm Cell, UV-U-1900, U-2900, U-2910, U-3900, U-3900H, U-1800, U-2800, U-3010, U-3310

Spectrophotometer (UV)

Sheet No. UV090013-02