



Moisture Determination in Emulsions (Mayonnaise)

General

Fats dissolve inadequately in methanol, therefore chloroform must be added. The titration generally runs quickly and without interference.

Chloroform is a good solvent for fats and can be used together with methanol, whereby the methanol content is at least 25%.

Reagent

Titrant: HYDRANAL-Titrant 5

Working medium: 40 ml

HYDRANAL-Solvent CM or 15 ml

HYDRANAL-Solvent + 30 ml chloroform

A one-component reagent can be used as well:

Titrant: HYDRANAL-Composite 5

Working medium: 20 ml methanol + 20 ml chloroform

Primay Settings

Method ID: Mayonnaise

Use oven: No

Auto start: Yes

Blank: No

Uncert. calc.: Yes

Reproducibility: 0.1%

Parameters

Stirring speed: 600 rpm

Max. bur. speed: 150%/min

Min. titr. time: 01:00 (min:s)

Max. titr. time: 00:05 (h:min)

Max. volume: 10 ml

Sample

Sample ID: Yes

Sample unit: g

Advised amount: 0.200 g

Uncertainty: 0.001 g

Sample factor: 1

Result unit: %

Number of digits: 6

Quality control: No

Procedure

The sample is administered with a plastic syringe without needle or with a large diameter needle.

Weigh by difference.

Sample amount: 0.2 g

Comments

Mayonnaise dissolves easily in the solvent. After 15 analyses the solvent becomes turbid and the sample dissolution is a little slower but the determination is still reliable. However, the solvent should be renewed after 20 determinations.

Results

Mean: 15.22 ±0.518%

(K=2, 20 replicates)

K: coverage factor