



Moisture Determination in Sunflower Oil

General

Fats dissolve inadequately in methanol, therefore chloroform must be added. The titration generally runs quickly and without interferences. The samples often contain very small amounts of water so a titrant with a low titre is recommended. When the water is non-homogeneously divided it is necessary to homogenise the samples before addition.

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

Reagent

Titant: HYDRANAL-Titrant 2

Working medium: 40 ml

HYDRANAL-Solvent CM or 15 ml

HYDRANAL-Solvent + 30 ml chloroform

A one-component reagent can be used as well:

Titant: HYDRANAL-Composite 2

Working medium: 20 ml methanol + 20 ml chloroform

Primary Settings

Method ID:	Sunflower oil
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:	02:00 (min:s)
Max. titr. time:	00:06 (h:min)
Max. volume:	10 ml

Sample

Sample ID:	Yes
Sample unit:	g
Advised amount:	5.000 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 with a needle.

Weigh by difference.

Sample amount: 5 g

Comments

After two determinations the solvent should be renewed.

Results

Mean: 0.043 ±0.002%

(K=2, 4 replicates)

K: coverage factor