



Moisture Determination in Acetylacetone

General

Ketones have a tendency to form ketals. At the same time water is formed and is then titrated as well. Cyclohexanone and acetone react rapidly, long chain ketones react more slowly. Aromatically substituted ketones only react very slowly. Reactive ketones are titrated with the Methanol-free KReagent, those which react sluggishly can also be titrated with the standard reagents.

Reagent

Titrant:
HYDRANAL-Composite 5K

Working medium:
40 ml HYDRANAL-Working medium K

Primary Settings

Method ID: Acetylacetone
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: 00:30 (min:s)
Max. titr. time: 00:05 (h:min)
Max. volume: 10 ml

Sample

Sample ID: Yes
Sample unit: g
Advised amount: 1.000 g
Uncertainty: 0.001 g
Sample factor: 1
Result unit: %
Number of digits: 6
Quality control: No

Comments

9 injections could be made without renewing the solvent.

Results

Mean: 0.542 ±0.016%
(K=2, 4 replicates)
K: coverage factor

Procedure

The sample is administered with a plastic syringe with needle. Weigh by difference.

Sample amount: 1 g