



## Moisture Determination in Di-sodium EDTA

### General

Carboxylic acid salts can be straightforwardly analysed, provided the sample dissolves rapidly in the working medium.

Dissolution is accelerated by the addition of formamide, titration at high temperatures and pre-grinding the sample.

Formamide improves the solubility of polar substances and also accelerates the extraction of moisture from solids and is therefore used in the titration at high temperatures. Formamide speeds up the course of the KF reaction. It can also influence the stoichiometry of the KF reaction, and not more than 50% by volume should be added.

### Reagent

Titrant: HYDRANAL-Titrant 5

Working medium: 30 ml

HYDRANAL-Solvent + 15 ml formamide

A one-component reagent can be used as well:

Titrant: HYDRANAL-Composite 5

Working medium: 30 ml methanol + 15 ml formamide

### Primary Settings

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

#### Sample

Sample ID:	Yes
Sample unit:	g
Advised amount:	0.100 g
Uncertainty:	0.001 g
Sample factor:	1
Result unit:	%
Number of digits:	6
Quality control:	No

### Procedure

The sample is weighed out with a powder funnel.

Weigh by difference.

Sample amount: 0.1 g

### Comments

Di-sodium EDTA has a poor solubility at room temperature, 0.1 g needs approximately 35 minutes to dissolve. At 50°C the sample is dissolved after 2 minutes for the first 4 analysis. The solvent should be renewed after the fourth analyses.

### Results

Mean: 9.348 ±0.311% H<sub>2</sub>O

(K=2, 4 replicates)

K: coverage factor