



## *Adherent Moisture of Potassium Nitrate*

### **General**

Adherent moisture in salts can be easily determined. It is best to choose a working medium which will prevent the salt from dissolving e.g. a methanol-chloroform mixture with an excess of chloroform. A rapid titration is also recommended.

### **Reagent**

Titrant: HYDRANAL-Titrant 2  
 Working medium: 10 ml  
 HYDRANAL-Solvent + 40 ml Chloroform

A one-component reagent can be used as well:

Titrant: HYDRANAL-Composite 2  
 Working medium: 10 ml methanol + 40 ml chloroform

### **Primary Settings**

Method ID: KNO3  
 Use oven: No  
 Auto start: Yes  
 Blank: No  
 Uncert. calc.: Yes  
 Reproducibility: 0.1%

### **Parameters**

Stirring speed: 500 rpm  
 Max. bur. speed: 150%/min  
 Min. titr. time: 00:10 (min:s)  
 Max. titr. time: 00:02 (h:min)  
 Max. volume: 10 ml

### **Sample**

Sample ID: Yes  
 Sample unit: g  
 Advised amount: 4.000 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: 4 g

### **Comments**

To avoid risks of clogging the tubing connected to the waste bottle, it is recommended to empty the cell manually (unscrew the glassware and discard its content in an appropriate waste container). 2 analyses can be performed in the same solvent.

As a rapid titration is recommended, stop the titration manually by pressing the "down arrow" key after one minute.

### **Results**

Mean: 0.058 ±0.005%  
 (K=2, 3 replicates)  
 K: coverage factor