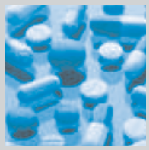
DENVER INSTRUMENT





Titrant Standardization

General

As the titre of the titrant solution changes or can change, for example due to the penetration of moisture in the bottle, it is recommended that the real titre value is determined with a standard containing a known amount of water.

Standardization with pure water

Pure water should be administrated with a calibrated micro syringe.

The amount of water injected should be estimated so that half of the volume of the titrant burette is dispensed.

If a 5 mg H_2O/ml titrant is used in a 10 ml burette, inject exactly 25 µl water (25 mg).

If a 2 mg H_2O/ml titrant is used in a 10 ml burette, inject exactly 10 µl water (10 mg).

Programming example for 5 mg h20/ml titrant standarization

KF reagent titre

Calibrate

Autostart:	Yes
Cal. Every:	2 days
Reproducibility:	0.1%

Standard

Standard ID:	Yes
Standard unit:	mg
Advised amount:	25.000 mg
Uncertainty:	0.500 mg
H_2O in std.:	100.00%
$\pm H_2O$ in std.:	0.001%

Parameters

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

Standardization with HYDRANAL Standard 5.00 (Water in method)

This calibration standard can be administrated with a syringe or a pipette, its water content is: 5.00 ±0.02 mg H_2O/ml at 20°C

If a 5 mg H_2O/ml titrant is used in a 10 ml burette, add exactly 5 ml Standard 5.00.

If a 2 mg H_2O/ml titrant is used in a 10 ml burette, add exactly 2 ml Standard 5.00.

Programming example for 5 mg h_20/ml titrant standarization

KF reagent titre

Calibrate

Autostart:	Yes
Cal. Every:	2 days
Reproducibility:	0.1%

Standard

Standard ID:	Yes
Standard unit:	ml
Advised amount:	5.000 ml
Uncertainty:	0.050 ml
H_2O in std.:	5.000 mg/ml
$\pm H_2O$ in std.:	0.020 mg/ml

Parameters

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

Standardization with sodium tartrate dihydrate

Sodium tartrate dihydrate does not lose or adsorb moisture, it has a water content of 15.66% ±0.05%. This standard is a fine powder and should be administrated with a weighing funnel. The exact amount is determined by difference weighing.

If a 5 mg H_2O/ml titrant is used in a 10 ml burette add, exactly around 160 mg sodium tartrate dihydrate.

If a 2 mg H_2O/ml titrant is used in a 10 ml burette add, exactly around 64 mg sodium tartrate dihydrate.

Programming example for a 5 mg H_2O/ml titrant standardization

KF reagent titre

Calibrate

Autostart:	Yes
Cal. Every:	2 days
Reproducibility:	0.1%

Standard

Standard ID:	Yes
Standard unit:	g
Advised amount:	0.160 g
Uncertainty:	0.001 g
H2O in std.:	15.66%
±H2O in std.:	0.050%

Parameters

Stirring speed:	600 rpm
Max. burette speed:	150%/min
Min. titr time:	00:30 (min:sec)
Max. titr time:	00:05 (h:min)
Max. volume:	10 ml

Note:
With sodium tartrate dihydrate, the solvent must be renewed after each titrant standardization.