



## HYDRANAL<sup>®</sup>-Methanol Rapid

**For fast Karl Fischer Titrations .....** Karl Fischer-Titration is a fast and exact method for the determination of the water content in pharmaceutical products, food, chemical substances, etc.

37817 HYDRANAL-Methanol Rapid contains accelerators and therefore leads to considerably shorter titration times and fast endpoints.

[www.sigma-aldrich.com/hydranal](http://www.sigma-aldrich.com/hydranal)

One-component reagents contain all the reactants, dissolved in a suitable alcohol. The sample is dissolved in methanol and titrated with the One-component reagent HYDRANAL-Composite 1,2 or 5. (Figure 1)

The speed of Karl Fischer reaction and therefore the time required and the accuracy as well is influenced by the medium used in the titration vessel. Our One-component reagents HYDRANAL-Composite are buffered to an optimum of pH by using imidazoles. Its performance does generally ensure a rapid Karl-Fischer-Titration.

Methanol is an unbuffered solvent and the most common used medium in the titration vessel, if one component reagents are used as titration agent. The volume of HYDRANAL-Composite dosed into the titration vessel is dependent on the water content of the methanol. Even if a titration vessel is in a good condition, the pre-titration of the methanol takes 2-3 min., the following titration of 20mg water takes 3-4 min.

The time for titration can be distinguished clearly, and therefore the accuracy of analysis improved, if HYDRANAL-Methanol Rapid is used in the titration vessel. Accelerators enable an optimal Karl Fischer titration. (Figure 2)

#### The advantages of HYDRANAL- Methanol Rapid

- Much shorter titration time
- Rapid end point
- High accuracy of the analysis

In case a non toxic medium is preferred, 34734 HYDRANAL-CompoSolver E has the same performance. This medium is based on ethanol.

For more information about the determination of Water with Karl Fischer-Titration, please check [www.sigma-aldrich.com/hydranal](http://www.sigma-aldrich.com/hydranal)

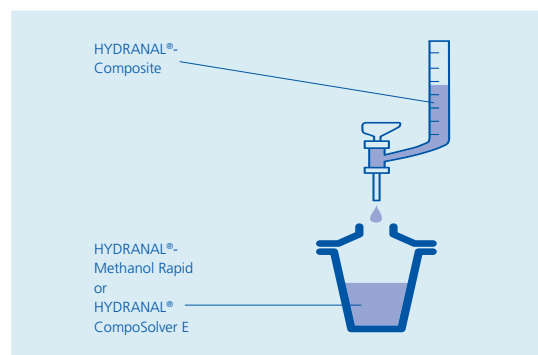


Figure 1 ..... Volumetric Titration with HYDRANAL-Composite

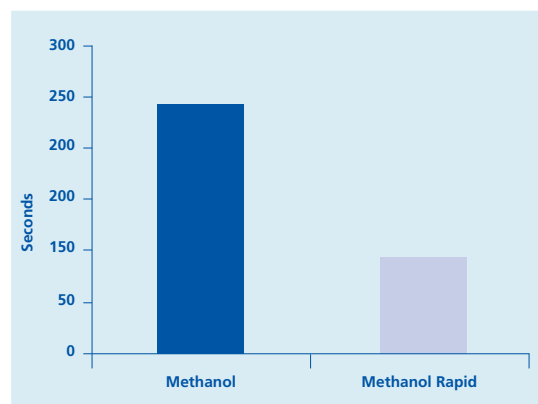


Figure 2 ..... Titration of 20 mg water

Cat. No.	Product Name	Pack Size
37817	HYDRANAL – Methanol Rapid	1 L; 2.5 L
34734	HYDRANAL – CompoSolver E	1 L; 2.5 L
are used together with following titration agents:		
34805	HYDRANAL – Composite 5; 1 mL = 5 mg water	500 mL; 1 L; 2.5 L
34806	HYDRANAL – Composite 2; 1 mL = 2 mg water	500 mL; 1 L; 2.5 L
34827	HYDRANAL – Composite 1; 1 mL = 1 mg water	500 mL; 1 L
34816	HYDRANAL – Composite 5K; for ketones und aldehydes, 1mL = 5 mg water	500 mL; 1 L; 2.5 L

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