

0.015–0.5 mg/kg diacetyl

LCK 242

Scope and application: For beer.



Test preparation

Test storage

Storage temperature: 0–8 °C (32–46 °F)

Protect against light.

Before starting

Review the Safety Data Sheets (MSDS/SDS) for the chemicals that are used. Use the recommended personal protective equipment.

Dispose of reacted solutions according to local, state and federal regulations. Refer to the Safety Data Sheets for disposal information for unused reagents. Refer to the environmental, health and safety staff for your facility and/or local regulatory agencies for further disposal information.

Store the reagents in a dark and cool place 0–8 °C (32–46 °F) until the expiration date specified on the packaging. Do not expose the DosiCap Zip to light for long periods.

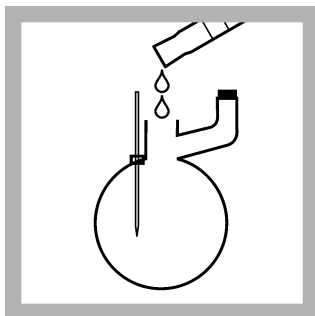
A steam distillation device is required for sample preparation.

The sample must undergo steam distillation in accordance with MEBAK regulations.

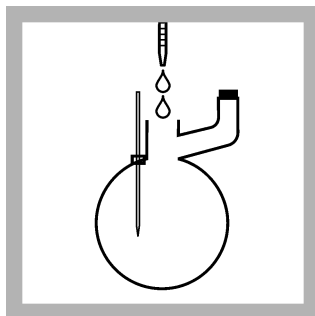
Several samples can be handled in parallel. Enter the number of samples. The sequence for measuring the blank must be the same to that for measuring the sample.

This method is not applicable on DR 1900/DR 2800.

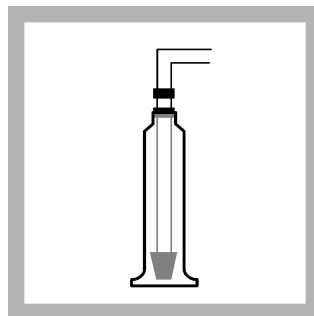
Test procedure—Steam distillation



1. Add 100 g of uncarbonated beer into a pre-heated distillation device.

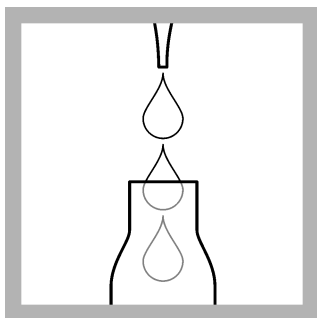


2. Add 1 drop of anti-foam emulsion.

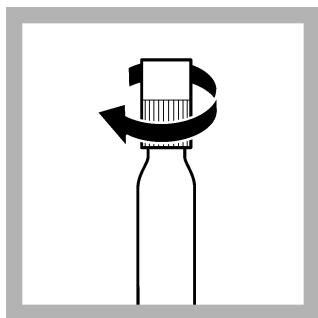


3. Start the distillation process and collect 25 mL of distillate. Control the steam supply so that 25 mL of distillate is collected in 2 minutes.

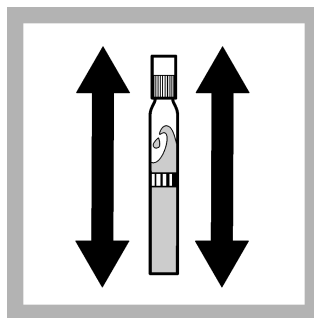
Test procedure—Analysis and evaluation



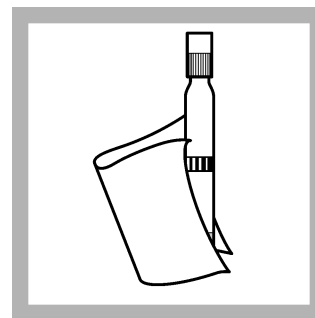
1. Pipet 4 mL of distillate into the cuvette.



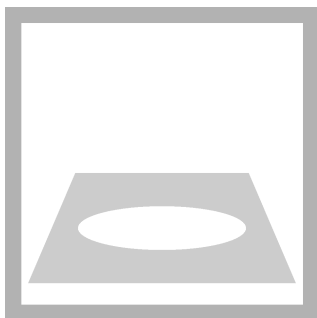
2. Close the cuvette with the DosiCap Zip; **fluting below**.



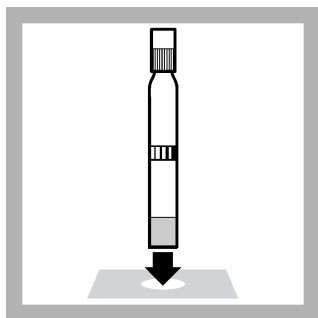
3. Shake **vigorously**.



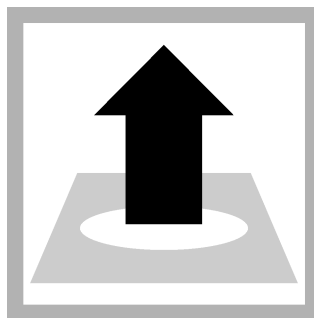
4. Thoroughly clean the outside of the cuvette and evaluate.



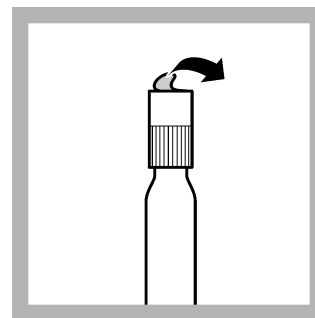
5. DR3800, DR5000 only: Go to Stored Programs. Select the test, close the cuvette compartment and push **ZERO** with empty cell holder.



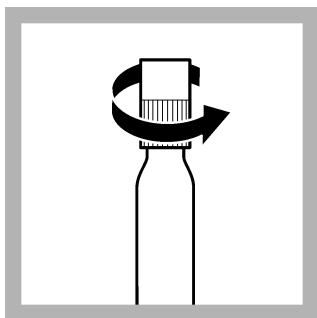
6. Insert the cuvette into the cell holder. DR3800, DR5000: push **READ**. Enter the **number of samples** and push **OK**. Insert the **specified number of sample cuvettes**. DR3800, DR5000: push **READ**.



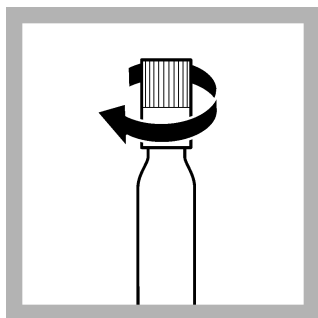
7. Remove the cuvette.



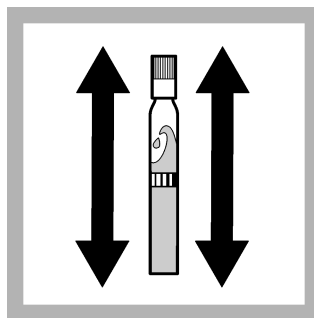
8. Carefully remove the foil from the screwed-on DosiCap Zip.



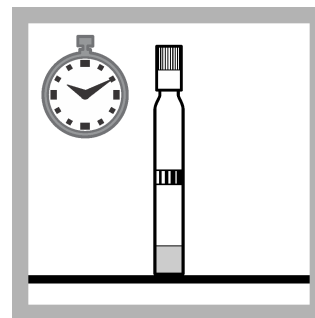
9. Unscrew the DosiCap Zip.



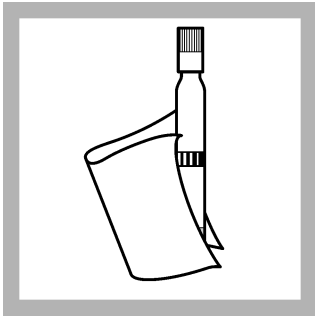
10. **Immediately** screw the DosiCap Zip back on; **fluting at the top**.



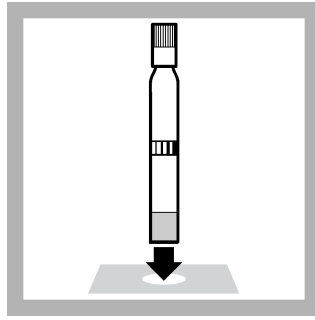
11. Shake **vigorously**.



12. Let stand for 5 minutes.



13. Thoroughly clean the outside of the cuvette and evaluate.



14. Insert the cuvette into the cell holder.
DR3800, DR5000: Push
READ.

Summary of method

The vicinal diketones diacetyl (2,3-Butanedione) and 2,3-Pentanedione that are formed by the yeast metabolism react with o-Phenylenediamine (OPD) to form 2,3-Dimethylquinoxaline, which is measured photometrically at 335 nm.



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