TNT 819 Vicinal diketones VDK

DOC312.53.94115

0.015–0.500 mg/kg VDK **TNTplus®—Method 10276**

Scope and application: For beer. The analysis follows the chemistry in MEBAK Wort, Beer, Beer-Based Beverages, Edition 1, 2012.

Test preparation

Reagent storage

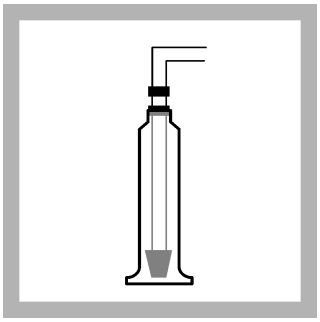
Storage temperature: 2–8 °C (35–46 °F)

Protect against light.

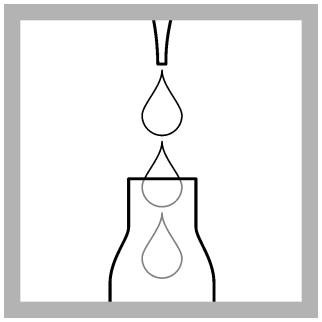
Before starting

Sample collection
Collect samples in clean glass bottles.
Analyze the samples as soon as possible for best results.
A steam distillation device is required for sample preparation.
The sample must undergo steam distillation in accordance with MEBAK or ASBC regulations.
This method is not applicable on DR1900/DR2800.
Review safety information and expiration date on the package.
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.

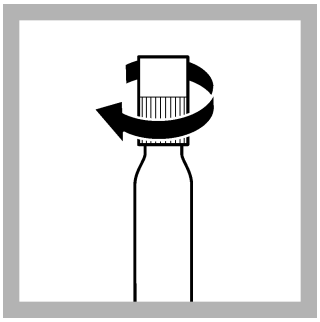
Procedure



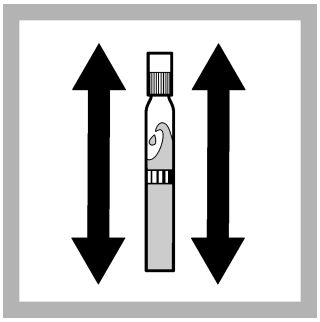
1. Use MEBAK or ASBC analysis methods to distill 100 g of uncarbonated beer to 25 mL of sample distillate. Use the sample distillate in the test procedure.



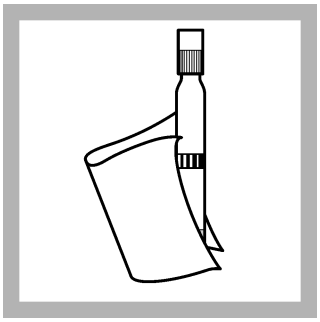
2. Pipet **4.0 mL distillate** into the vial.



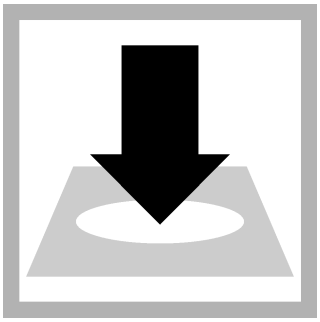
3. Close the vial with the DosiCap Zip; **fluting below**.



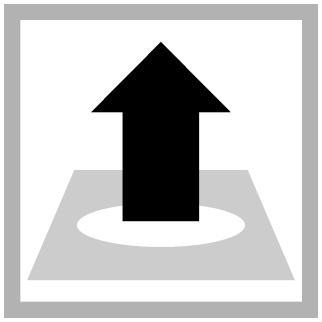
4. Shake **vigorously**.



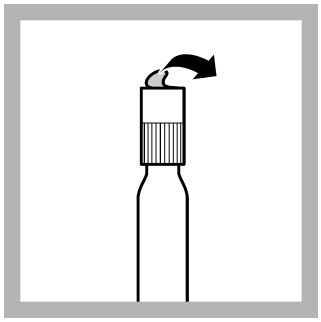
5. Thoroughly clean the outside of the vial.



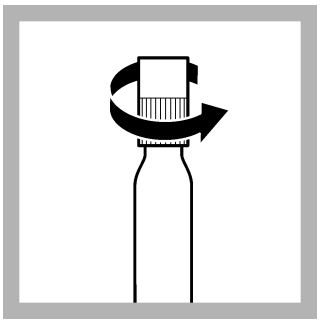
6. Insert the vial into the cell holder.
The instrument zero is set.



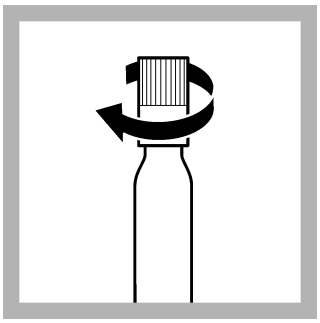
7. Remove the vial.



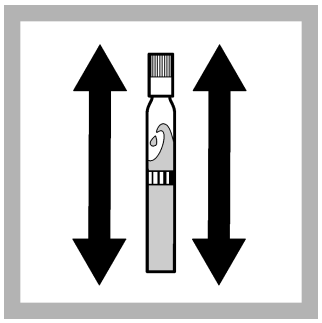
8. Carefully remove the foil from the screwed-on DosiCap Zip.



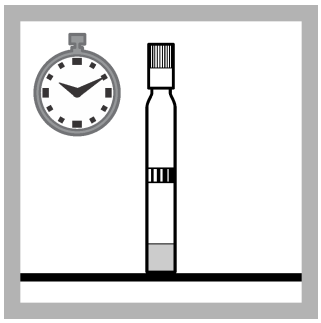
9. Unscrew the DosiCap Zip.



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

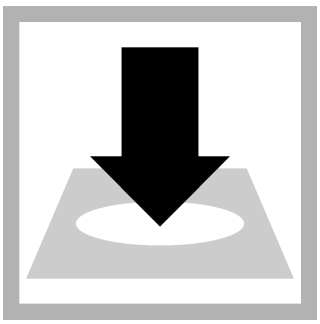


11. Shake **vigorously**.



12. Let stand for **5 minutes**.

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



14. Insert the vial into the cell holder.
Results show in **mg/kg VDK**.

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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