MenidiMedica
Biotechnology Applications

2024

FURFURAL DETECTION KIT

Description:
Introducing the state-of-the-art Furfural Detection Kit, designed specifically for the rapid and accurate detection of furfural in alcoholic beverages. Perfect for distilleries, breweries, quality control labs, and regulatory agencies, this kit provides everything you need to conduct 100 tests, ensuring your products meet the highest standards of quality and safety.

Principle of Method:
The detection is based on a colorimetric assay, where furfural reacts with a substrate in an acidic medium and color activator to produce a pink to red coloration. The intensity of the color indicates the presence and concentration of furfural in the sample. This method is highly sensitive and specific, allowing for the detection of furfural even at low concentrations.

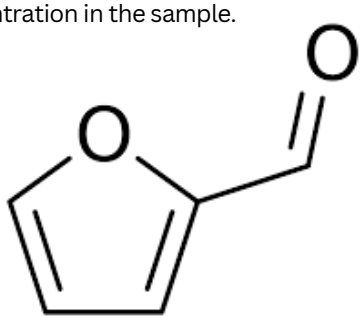
Contents for 100 Tests:
Ref.No.: FA100001
Shelf Life: 24 months at RT

- R1 - Substrate Solution (5x10 mL): A specially formulated reagent that reacts with furfural under acidic conditions.
- R2 - Color Activator (3x10 mL): Reacts with the furfural substrate complex to produce a distinct color change.
- Instruction Manual: Detailed step-by-step guide for conducting tests and interpreting results.

Procedure for Furfural Detection

1. **Sample and Reagent Preparation:**
   - Dilute the alcoholic beverage sample 1:10 with ethanol to ensure the concentration of furfural falls within a detectable range.
2. **Reaction Setup:**
   - In a test tube, add 1 mL of the diluted sample.
   - Add 1 mL of the R1 substrate solution.
   - Add 0.5 mL of the R2 color activator solution to the mixture.
3. **Incubation:**
   - Heat the mixture in a water bath at 40°C for about 30 minutes. Avoid boiling to prevent evaporation and decomposition of sensitive components.
4. **Observation and Analysis:**
   - After cooling to room temperature, observe the color of the solution. A pink to red color indicates the presence of furfural.
   - For quantitative analysis, the absorbance of the solution can be measured at a wavelength of 550 nm using a spectrophotometer or Electra m2 Unified Analyzer. Compare the absorbance with a calibration curve derived from known furfural standards to determine the furfural concentration in the sample.

This Furfural Detection Kit is your solution for ensuring the quality and safety of your alcoholic beverages. With easy-to-follow procedures and reliable results, you can confidently monitor furfural levels in your products, maintaining compliance with industry standards and protecting consumer health.



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