

DNSA REAGENT

Quantitative test for reducing sugars

Background

On boiling with reducing sugars 3,5 dinitrosalicylic acid (DNSA) reagent changes from yellow to red. Small volumes of the reagent and test sample are boiled for 5-10 minutes, then diluted with water and the colour read using a colorimeter. Concentrations of reducing sugar down to below 0.5mM, (90µg of glucose/cm³), can be detected using this test. There is no need to filter after boiling and small volumes of test solutions can be used, (typically 0.3cm³ for a standard cuvette).



SAFETY

WEAR EYE PROTECTION
TAKE CARE WITH BOILING WATER



DNSA reagent
contains 0.4M NaOH

To prepare 100cm³ of reagent

- dissolve 1g of 3,5-dinitrosalicylic acid in 50cm³ of water.
- slowly add 30g sodium potassium tartrate tetrahydrate, (KNaC₄H₄O₆·4H₂O)
- add 20cm³ of 2N NaOH. 
- dilute to a final volume of 100cm³ with water.
- label the stock solution 'IRRITANT' 

Method

- Add 0.3cm³ of the sample to be tested to 0.3cm³ of DNSA reagent in a test tube.
- Stand the test tube in boiling water for 5 -10 minutes.
- Add 3cm³ of water and read absorbance with green light (525nm).

More details and sample results can be viewed on the *Mystrica* website,
www.mystrica.com