

The Benedict's method (or Benedict's test) is a chemical test used to detect the presence of reducing sugars, such as glucose, fructose, and lactose, in a solution. It's often used in labs for experiments involving carbohydrate identification. **Benedict's reagent** is a blue solution that contains copper(II) sulfate (CuSO_4), sodium citrate, and sodium carbonate. When the reagent is heated in the presence of reducing sugars, the copper ions (Cu^{2+}) are reduced to copper(I) ions (Cu^+), forming a precipitate. A red or orange precipitate indicates a high concentration of reducing sugars. 2.3.4