Carolina™ Solution Sheets

**Schiff’s Reagent**

Learn how to make Schiff’s reagent and use it to test for aldehyde groups.

**Materials**
- Basic Fuchsin (item #864170)
- Hydrochloric Acid (item #847841)
- Potassium Metabisulfite
- Distilled Water (item #858621)
- Stir Bar
- Magnetic Stir Plate (item #701023)
- Erlenmeyer Flask, 100-mL (item #731031)
- Graduated Cylinder (item #721744)
- Label
- Boiling Chips (item #848280)

**Procedure**

1. Boil 900 mL of distilled water and dissolve 5 g basic fuchsin.
2. Cool to 50°C and slowly add 100 mL of 1N HCl.
3. Cool this solution to approximately 25°C and dissolve 10 g of K$_2$S$_2$O$_5$.
4. Shake for 3 minutes and incubate in the dark at room temperature for 24 hours.
5. Add 5 g of fine activated charcoal and shake for 3 minutes.
6. Filter solution (should be clear).
7. Store at 4°C in a foil-covered bottle.

**Label Information**

<table>
<thead>
<tr>
<th>Schiff’s Reagent</th>
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<td>Eye and skin irritant; harmful if swallowed</td>
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- Date Prepared: 

- Initials of Preparer: 

- Health Risk: 1

- Flammability: 0

- Reactivity: 0

**Applications**

Schiff’s reagent is used in the Schiff’s reaction to test for the presence of aldehyde functional groups. A magenta color indicates a positive result.

**Reference**