Name: Date: 9/19/2014 Class:

**Testing foods for proteins**

You are going to test five foods to see if they contain protein. The test you will use is called the biuret test. You will need:

• small samples of threefoods/solutions

• a tile or dish on which you can put the foods

• a pestle and mortar

• a spatula or other small implement for pickingup pieces of food

• three test tubes

**• Biuret solution**

**•** a dropper pipette

**•** safety glasses and apron

***Safety***

Sodium hydroxide is caustic and dissolves clothing, skin and bench tops. It is destructive rather than dangerous so if any is spilt on the bench, neutralize it at once with an equal volume of dilute hydrochloric acid and wipe dry. If spilt on clothing do the same but follow with a wash in as much water as possible. If spilt on the skin, do not add acid but wash under the tap until the 'soapy' feeling is removed. Wear safety glasses to stop any chemicals going into your eyes.

**Procedures**

**1** Chop or crush a small sample of each of the three foods, unless they are already liquids. Take care to keep them separate from one another.

**2** Place about 5 mL of sample of one food in a test tube. Using a dropper pipette, add about 5 mL of Biuret solution to the test tube.

**3** Place a stopper on the test tube and shake thetube to mix the food and the Biuret reagent thoroughly.

**4** Return the tubes to the rack, leave for a few seconds and record the resulting color in your results chart.

**5** If the mixture of food and reagent is a purple or mauve color, then there is protein in the food. If it stays blue, then there is no protein in the food. Record your conclusions in your results chart.

**6** Repeat with the remaining two samples.

**Observations and Results Chart:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Trial** | **Sample** | **Observations (Color)** | **Conclusion** |
| Example | Water | * Sample was originally transparent and colorless * Biuret solution was transparent, dark blue * No change in color (stayed dark blue) after combining | No protein present |
| **1** |  |  |  |
| **2** |  |  |  |
| **3** |  |  |  |