**Milk Protein: We Drink That Solid?**

**Report Sheet**

I. **Density of Milk**

Mass of empty plastic beaker \_\_\_\_\_\_\_15.1g\_\_\_\_

Volume of milk added to beaker \_\_\_\_\_\_\_50 mL\_\_\_\_

Mass of milk + beaker \_\_\_\_\_\_\_61.4 g\_\_\_\_\_

Mass of milk \_\_61.4g-15.1g=46.3g\_\_\_

Density of milk (=mass/volume) \_\_\_.926g/mL\_\_\_\_

II. **Casein Content of Milk**

Volume of milk used \_\_\_\_\_\_\_\_\_\_236.588\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ mL

Mass of milk used \_\_\_\_\_\_\_\_\_\_219.08\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ g

Brand name of milk \_\_\_\_\_\_Kroger Skim Fat Free Milk\_\_\_\_\_

Grams of protein on the product

label \_\_\_\_\_\_\_\_\_\_\_\_8\_\_\_\_\_\_\_\_\_\_\_\_\_\_ g

Mass of empty weighing boat \_\_\_\_\_\_\_\_\_\_\_2.7\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ g

Mass of casein and weighing boat \_\_\_\_\_\_\_17.7\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ g

Mass of casein \_\_\_\_\_\_\_15.0\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ g

The percentage of casein in the milk sample = mass of casein x 100

mass of milk

Percentage of casein in your sample \_\_\_\_\_\_\_\_6.85%\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Percentage of protein on product

label \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

III. **Biuret tests**

Indicate the color of the sample after the addition of NaOH and CuSO4 and whether or not the sample contains protein.

|  |  |  |
| --- | --- | --- |
| **Sample** | **Color after NaOH + CuSO4 addition** | **Protein??** |
| Casein from your milk sample | Dark purple | Yes |
| Leftover liquid from milk sample | Light blue | No |
| Sugar | Dark blue | No |
| Bread | blue | No |
| Cheese | Purple | Yes |
| White meat | Purple | Yes |
| Chopped nuts | Blue | No |
| Cucumber | Blue | No |