**Rebecca Morra**

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

**Report Sheet**

I. **Density of Milk**

Mass of empty plastic beaker \_\_\_\_\_\_\_\_\_\_19.7\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ g

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

Mass of milk + beaker \_\_\_\_\_\_\_\_\_\_\_69.2\_\_\_\_\_\_\_\_\_\_\_\_\_\_ g

Mass of milk \_\_\_\_\_\_\_\_\_\_\_49.5\_\_\_\_\_\_\_\_\_\_\_\_\_\_ g

Density of milk (=mass/volume) \_\_\_\_\_\_\_\_\_\_\_\_0.99\_\_\_\_\_\_\_\_\_\_\_\_\_ g/mL

II. **Casein Content of Milk**

Volume of milk used \_\_\_\_\_\_\_\_\_\_240\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ mL

Mass of milk used \_\_\_\_\_\_\_\_\_\_\_\_237.6\_\_\_\_\_\_\_\_\_\_\_\_\_\_ g

Brand name of milk \_\_\_\_\_\_\_\_\_\_\_\_Great Value\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Grams of protein on the product

label \_\_\_\_\_\_\_\_\_\_\_\_9\_\_\_\_\_\_\_\_\_\_\_\_\_\_ g

Mass of empty weighing boat \_\_\_\_\_\_\_\_\_\_\_2.5\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ g

Mass of casein and weighing boat \_\_\_\_\_\_\_\_\_\_\_\_24.2\_\_\_\_\_\_\_\_\_\_\_\_\_\_ g

Mass of casein \_\_\_\_\_\_\_\_\_\_\_\_21.7\_\_\_\_\_\_\_\_\_\_\_\_\_\_ g

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

 mass of milk

Percentage of casein in your sample \_\_\_\_\_\_\_\_\_\_\_\_\_9.13\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Percentage of protein on product

label \_\_\_\_\_\_\_\_\_\_\_%16\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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 | Violet/blue | yes |
| Leftover liquid from milk sample | Light/cloudy blue | No |
| Sugar | turquoise | No |
| Bread | Violet/blue |  yes  |
| Cheese | Violet/blue | yes |
| White meat | Violet/blue | yes |
| Chopped nuts | Violet/blue | yes |
| Cucumber | Turquoise | No |
| blueberry | Turquoise | no |
| cantaloupe | Turquoise  | No |