

The Coefficient Connection

$$\text{NaHCO}_3 + \text{HCl} \rightarrow \text{NaCl} + \text{H}_2\text{CO}_3$$

Calculation #1

$$1.99 \text{ g NaHCO}_3 \times \frac{1 \text{ mol NaHCO}_3}{84.0 \text{ g NaHCO}_3} = 0.024 \text{ mole NaHCO}_3$$

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Calculation #2

Mass of dish, glass, and NaCl	=	84.3 g
Mass of dish, glass	=	82.9 g
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Mass of NaCl	=	1.36 g

The Coefficient Connection

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Calculation #3

$$1.36 \text{ g NaCl} \times \frac{1 \text{ mol NaCl}}{58.5 \text{ g NaCl}} = 0.023 \text{ mole NaCl}$$

The Coefficient Connection

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Calculation #4

$$\frac{0.023 \text{ moles NaCl}}{0.024 \text{ moles NaHCO}_3} = \frac{1 \text{ mole NaCl}}{1 \text{ mole NaHCO}_3}$$

Chem Is Try #2

$$\text{NaHCO}_3 + \text{HCl} \rightarrow \text{NaCl} + \text{H}_2\text{CO}_3$$

$$2 \text{ g NaHCO}_3 \times \frac{1 \text{ mol NaHCO}_3}{84.0 \text{ g NaHCO}_3} \times \frac{1 \text{ mol NaCl}}{1 \text{ mol NaHCO}_3} \times \frac{58.5 \text{ g NaCl}}{1 \text{ mol NaCl}}$$

1.39 g NaCl