

37.6 de carbono 63 de hidrógeno y 55.8
 Cloro con una masa de 127 gramos

empírica

$$\text{C: } 40 \div 12 \text{ g/mol} = 3.333 \text{ mol} / 3.331 = 1$$

$$\text{H: } 6.7 \div 1 \text{ g/mol} = 6.7 \text{ mol} / 3.331 = 2$$

$$\text{O: } 53.3 \div 16 \text{ g/mol} = 3.331 \text{ mol} / 3.331 = 1$$

Formula empírica: CH_2O

$$\text{C: } 1 \times 12 = 12$$

$$n = \frac{90}{30} = 3$$

$$\text{H: } 1 \times 2 = 2$$

$$\text{O: } 16 \times 1 = 16$$

30

Formula molecular: $\text{C}_3\text{H}_6\text{O}_3$

$$\text{C: } 37.8 \div 12 \text{ g/mol} = 3.15 \text{ mol} / 1.594 = 1.976 \rightarrow 2$$

$$\text{H: } 6.3 \div 1 \text{ g/mol} = 6.3 \text{ mol} / 1.594 = 3.952 \rightarrow 4$$

$$\text{Cl: } 55.8 \div 35 \text{ g/mol} = 1.594 / 1.594 = 1$$

Formula empírica: $\text{C}_2\text{H}_4\text{Cl}$

$$\text{C: } 12 \times 2 = 24$$

$$\text{H: } 1 \times 4 = 4$$

$$n = \frac{127}{63} = 2$$

$$\text{Cl: } 35 \times 1 = 35$$

63

Formula molecular: $\text{C}_4\text{H}_8\text{Cl}_2$