

Answer on Question #57768 - <Chemistry> - <General Chemistry>

Molar mass of PCl is 66.4268 g/mol

$$\frac{53.9 \text{ g}}{66.4268 \text{ g/mol}} = 0.81 \text{ mol}$$

In 53,9 grams of PCl is 0.81 mol

A mole is a measurement that represents $6.02 \cdot 10^{23}$ particles

$$0.81 \text{ mol} \cdot 6.02 \cdot 10^{23} \text{ particles} = 4.87 \cdot 10^{23} \text{ particles}$$

In 53.9 grams of PCl are $4.87 \cdot 10^{23}$ particles