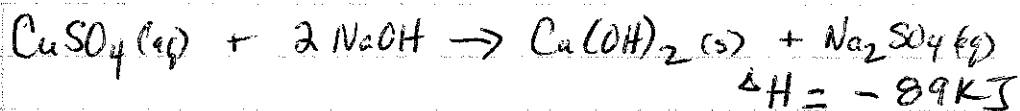


$$6. \text{CuSO}_4 = 0.0500 \text{ L} \times \frac{0.500 \text{ mol}}{\text{L}} = 0.025 \text{ mol CuSO}_4$$



$$m = 100.0 \text{ g}$$

$$c = 4.18 \text{ J/g} \cdot ^\circ\text{C}$$

$$\Delta T = 5.32^\circ\text{C}$$

$$\Delta H_f = \frac{m \times c \times \Delta T}{\text{mol}}$$

$$= \frac{100.0 \text{ g} \times 4.18 \text{ J/g} \cdot ^\circ\text{C} \times 5.32^\circ\text{C}}{0.025 \text{ mol}}$$

$$= -8.9 \times 10^4 \text{ J/mol CuSO}_4$$

The enthalpy change for this reaction is -89.0 kJ/mol of CuSO_4 .