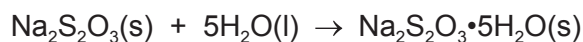


- (iii) Assume that under the same conditions, the enthalpy change of solution, ΔH_{sol} , for anhydrous sodium thiosulfate, $\text{Na}_2\text{S}_2\text{O}_3$, is -7.7 kJ mol^{-1} . Construct a Hess's cycle and determine the enthalpy change for the following reaction. (If you were unable to calculate an answer to (b)(ii), assume a value of $+32.2 \text{ kJ mol}^{-1}$. Note this is not the correct value.)



$\Delta H = \dots\dots\dots \text{ kJ mol}^{-1}$
sign *value* [2]

- (c) How would your temperature change in (a) be affected if your sample of **FB 5** contained a small amount of anhydrous sodium thiosulfate? Explain your answer.

.....
.....
..... [1]

[Total: 10]