Hand Warmer Design Challenge

Each lab team will prepare a "scaled down" lab report in a power point presentation to include the following...

- Introduction and Purpose
- Method (procedure)
- Results (summarized in data tables) of preliminary and final trials). Include one set of sample calculations for heat of solution in this section.
    - Include a data table to show theoretical and experimental heat of solution values along with the % error for all compounds tested.
    - Include a data table with data and measured results to include…
        - Temperature change
        - $q_{reaction}$ (J)
        - $q_{calorimeter}$ (J)
        - $q_{solution}$ (J)
        - Moles of solute
        - Enthalpy of solution ΔH_{soln} (kJ/mol)
- Discussion

Since this is a "scaled down" version, you should summarize and use "bullets" rather than report in narrative paragraph format. You should still refer to the lab report guidelines posted on the class resource page and linked here to be sure you meet the basic requirements for each section…

http://strippolichemistry.weebly.com/uploads/9/7/8/2/9782140/lab_report_guidelines_bosque_chem.pdf

The calculations…

$q_{reaction} = mC\Delta T$, where *m* is the mass of the solute and the solvent combined.

$q_{calorimeter} = C_{calorimeter} \times \Delta T$

$q_{solution} = -(q_{reaction} + q_{calorimeter})$

$q_{solution} = -(mC\Delta T + C_{calorimeter} \times \Delta T)$