Experiment A (Aspirin) – Write-up

This is a preparative experiment.

(See below for common items for all 113A reports)

Specifically for Experiment A, among the items to include in your report:

- begin with a brief (1-2 line) description of the experiment and expected result.
- the reaction and mechanism must be included as a "Figure." Even if it already appears in your notebook, you must neatly write this (handwritten is fine), and attach it to the end of your report as "Figure 1." Since it will be handwritten, it will not be included in your report to turnitin.com
- Every step in the procedure has a result and a reason. Describe what you observe and explain the rationale for each step. For example, why did you heat the reaction? What is the purpose of cooling the solution before filtering? What is happening (chemically) when you add bicarbonate, then acid later?
- explain what the ferric chloride test of the 4 samples indicate about purity of the various samples
- discuss your yield results in quantitative terms (be mindful of significant figures and units)
- With respect to yield, consider sources of systematic loss of material: how might some salicylic acid not end up as aspirin? Hint: considering the flow diagram is valuable in formulating your analysis. Note that transfer losses are typically not worth mentioning (some stuck to filter paper, some stuck to spatula, some stuck to walls of flask, etc, etc...)
- focus on less obvious but potentially significant losses.

SUBMIT YOUR ASPIRIN SAMPLE WITH YOUR REPORT. Put the following on your label:

Name
Section # (instructor)
"Aspirin"
Wt in vial _____ g (put what is exactly in the vial)
Yield _____% (the actual yield)

COMMON ITEMS FOR ALL CHEM 113A REPORTS

Some common items apply to this and all subsequent Chem 113A reports (these will not be repeated in future Key Discussion Points)

- check your report for correct spelling and punctuation.
- follow the grammatical style of reporting described in "Grammar and Usage" under "Course Handouts" on the Chem 113A website.
- if anything unusual happened during the experiment where you had to deviate or restart the experiment, describe what happened and how you dealt with the situation.
Where you refer to information from the literature (e.g. physical properties such as melting point, density, solubility, etc), cite the reference as a superscript where used and list the reference at the end of the report. For example:

"I obtained a melting point of 100-101°C (literature 100.5 - 101°C)." \(^1\)

Reference:
^1 CRC Handbook of Chemistry and Physics, 2011, CRC Press, page 792. (include as many references as you used in your report)