Assignment #6

Pre-lab outline for Expt. 18 .................................................................0.1

Data and observations for Expt. 18 (notebook pages) .....................0.2

Results from Expt. 18
  Melting point and percent yield cholesteryl benzoate ...................0.1
  Melting point and percent yield aspirin .....................................0.1

Discussion (1-2 pages).......................................................................0.4

  Discuss the objectives, observations, principles and error sources for
  Experiment 18. Include the following in your discussion:

  • Relate the observations from your notebook to the chemical changes that
    took place during the reactions.

  • Discuss the yields and melting points of both products. Compare the
    melting point of your purified cholesteryl benzoate to the mixture of your
    product with cholesterol, and discuss the significance.

  • Describe what you saw when the liquid crystals were heated and cooled.

  • Discuss the solubility tests performed on your purified acetylsalicylic acid.
    Compare the solubility and melting point results for your aspirin product
    and the commercial aspirin tablet. Try to provide an explanation for any
    differences.

  • Explain the results of the ferric chloride tests. What observation indicates
    a positive result (that a phenol is present)? Is there any indication that
    your crude product contains unreacted starting material (salicylic acid)?
    Explain your observation for test tube 4.

The length of the discussion section must not exceed two pages. Use double-
spacing, a one inch margin on the top, bottom and sides of the page, and a font size that is
not smaller than 12 point. If your discussion section exceeds two pages in length, your
TA will not read past the second page when grading the report.

Green Chemistry ..................................................................................0.1