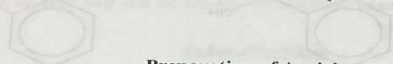


Chem 114 Experiment: The Preparation of and Testing of Aspirin

Name: _____ Date: _____ Section: _____

Part 1: Data and results. Complete the given tables with significant figures and units, where applicable.

1. Write the balanced chemical reaction for the preparation of aspirin.



Preparation of Aspirin

		Show Your Work Here.	Value
1	Mass of salicylic acid and 125-mL flask		101.00g
2	Mass of empty 125-mL flask		94.74g
3	Mass of salicylic acid {L1} - {L2}		6.26g
4	Volume of acetic anhydride used		9.58ml
5	Mass of aspirin and weigh tray		21.76g
6	Mass of empty weigh tray		1.96g
7	Mass of aspirin (experimental or actual) {L5} - {L6}		
8	Theoretical yield of aspirin (eq 5)		
9	Percent yield of aspirin (eq 7)		
10	Color of prepared aspirin		White
11	Physical state of prepared aspirin (solid, liquid, or gas)		Mostly Solid

pH Test

	Item	Color of pH Indicator Paper	pH	Conclusion (carboxylic acid or not carboxylic acid?)
12	Prepared aspirin	Orange	3	
13	Salicylic acid	Orange	3	
14	Deionized water	Green	6	

2. Write the balanced chemical reaction for a phenol with iron(III) chloride.

Iron(III) chloride Test

	Item	Initial Appearance of Solution	Final Appearance of Solution with FeCl ₃	Conclusion (phenol or not phenol)
15	1% Iron(III) chloride (reagent only)			
16	Prepared aspirin	Cloudy White	Light Purple	
17	Salicylic acid	Cloudy White	Dark Purple	
18	Deionized water	Clear	Light Yellow	

Complete the next page as well.