

Name: _____

Section: _____

Data and Calculations for Experiment 13**Properties of amines**

	Odor		Solubility		pH	
	<i>Original Soln</i>	<i>with HCl</i>	<i>H₂O</i>	<i>Ether</i>	<i>HCl</i>	<i>H₂O</i>
6 M NH ₃						
Triethylamine						
Aniline						
N,N – Dimethylaniline						
Acetamide						

Triethylamine and concentrated hydrochloric acid observation:

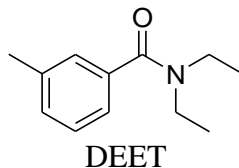
Write the chemical equation for the reaction of triethylamine with concentrated hydrochloric acid:

Hydrolysis of Acetamide, $\text{H}_3\text{C}-\overset{\text{O}}{\parallel}{\text{C}}-\text{NH}_2$

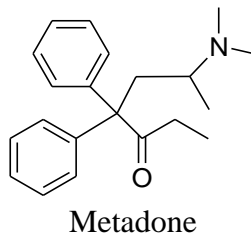
<i>Solution</i>	<i>pH Reading</i>	<i>Odor Noted</i>
1. Acid		
2. Base		

Questions

1. Effective mosquito repellents contain DEET (N,N-diethyl-3-methylbenzamide). If you were to synthesize this compound, what carboxylic acid and amine would you begin with?



2. Metadone, a narcotic analgesic shown below, is dispensed as its hydrochloride salt. Explain the usefulness of the salt rather than the amine.



3. Nicotine is an alkaloid, meaning base-like. What structural feature is present in the molecule that would make it react as a base?



4. Write the equations that account for what happens in the hydrolysis of the acetamide solution in (A) acid and in (B) base. See the data sheet for the structure of acetamide.

A.

B.