

Lab Instructor: _____

Name: _____

DATA

1. Unknown number of liquid	
Part 1	
2. Is the unknown liquid <u>soluble</u> or <u>insoluble</u> in water?	
3. If the unknown is insoluble in water, is it on the <u>top</u> or the <u>bottom</u> of the water layer?	
4. Therefore, is the liquid <u>less dense</u> or <u>more dense</u> than water?	
Part 2	
5. Approximate boiling point of liquid	
Part 3	
6. Does the unknown liquid freeze in the Dry Ice-acetone bath?	
7. Is the freezing point of the unknown <u>higher</u> than -78°C or <u>lower</u> than -78°C ?	

CONCLUSIONS

8. Explain in detail the logic you used to determine the identity of your unknown. Be specific.

Unknown number: _____

Identity of unknown: _____

Question:

1. An unknown liquid was mixed with water, and two layers formed. When a blue solution of CuSO_4 was added and mixed, the top layer was colored blue. A fresh sample of the same unknown froze in dry ice, and the boiling point of the unknown was measured to be 82°C . What is the identity of the unknown? Clearly explain each step of your reasoning.