



## Procedure

- 1. In a short fat test tube, add the alcohol and the acetone. Add a stir bar. Cool with an ice bath.
- 2. While stirring, add the Jones reagent drop wise. Check for completion of the reaction by TLC. Add a drop of isopropanol to destroy any excess reagent. I used a 10% ethyl acetate/hexane mixture as my mobile phase.
- 3. Transfer the liquid solution to a separatory funnel. Add 5 ml of water and 6 ml of diethyl ether. Separate and discard the aqueous portion in the beaker marked chromium waste.
- 4. Wash organic layer with sodium bicarbonate.
- 5. Add 5 ml of petroleum ether and dry over MgSO<sub>4</sub>.
- 6. Remove the solvent by low pressure evaporation. Find a yield. If the product is not a solid or is suspect, confirm that you have made the ketone by doing another TLC.

## Post Lab Questions:

- 1. Draw a mechanism for this reaction.
- 2. Write the equation that describes how isopropanol destroys any excess reagent.
- 3. Write the equation that describes how sodium bicarbonate destroys any excess sulfuric acid.

 $<sup>^{1}</sup>$  Jones reagent was prepared by mixing 17.5 grams of CrO<sub>3</sub>, with 16 ml of H<sub>2</sub>SO<sub>4</sub> and 125 mL of water.