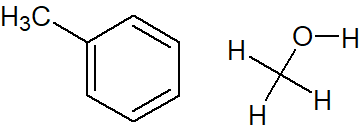
**CH 245: ORGANIC CHEMISTRY 1 LABORATORY (Fall 2019)**

**Title:**

1. **Purpose: (1 point)**

The purpose is to determine the effect on the boiling point of a solution of toluene with the addition of methanol through the use of simple distillation to determine boiling point.

1. **Drawing of structure of the main compound or balanced chemical equation if synthesis is performed: (1 point)**



Toluene Methanol

**3. Reagents and the major product (up to 6 points)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **M.W.**  (0.5 pts) | **Density**  (0.5 pts) | **Amount (grams/mL)**  (0.5 pts) | **Moles**  (0.5 pts) | **Hazards/Precautions**  **(MSDS data) and melting point or boiling point** (2 pts) | **Waste Disposal**  **(aqueous or organic)** (2 pts) |
| Toluene | 92.14 | 0.87 g/mL |  |  | Skin and serious eye irritation, highly flammable liquid and vapor, B.P. 110.6°C | Organic |
| Methanol | 32.04 | 0.792 g/mL |  |  | Highly flammable liquid and vapor, toxic in skin, inhaled, or swallowed, B.P. 76.7°C | Organic |

**4. Procedure (up to 2 points)**

|  |  |
| --- | --- |
| **Procedure** | **Observations and Lab Data** |
| A summary of the procedure done with bullet points) | Color changes, exothermic or endothermic reactions, gas generation, etc.; tare weights for flasks, etc. |
|  |  |

**5.** Results; include actual yield in grams and % yield.

**Results (need to get signed by instructor or TA):**