

SOP: R012**Preparation of α -Naphthol Spray for TLC analysis****Materials and Reagents:**

1. Graduated beaker, 600 ml
2. Magnetic stir bar
3. Magnetic stir plate
4. Graduated cylinder, 500 ml
5. α -naphthol (Sigma N-1000, 100 g)
6. Sulfuric acid (VWR MK287613)
7. Ethanol, absolute
8. Serological pipet, glass, 10 ml
9. Pipet bulb
10. Chemical fume hood
11. TLC sprayer, 250 ml (Kontes 422530-0250)

Protocol:

1. _____ Measure 350 ml of absolute ethanol into the graduated beaker.
2. _____ Add magnetic stir bar and place on a magnetic stir plate located inside a chemical fume hood.
3. _____ Carefully and slowly add 25 ml of sulfuric acid to the water using a glass serological pipet with a rubber bulb (note 1).
4. _____ Add 5 g of α -naphthol to the sulfuric acid/ethanol solution.
5. _____ Allow components to mix thoroughly (note 2).
6. _____ Transfer contents to 500 ml graduated cylinder, and bring volume to 500 ml with absolute ethanol.
7. _____ Transfer spray to TLC sprayer for use (note 3).

Notes:

1. The acid may react violently with the ethanol and create an exothermic reaction, as it comes as 18M. Use caution with this step, including personal protective equipment such as gloves and lab coat, and perform only in a certified chemical fume hood.
2. This may take several hours.
3. This spray, once heated, will detect sugars.

References:

Kates, Morris. Methods in Lipidology. More details once Dean Crick finds the missing book.