

7a/ extraction of trimyristin from nutmeg

procedure

- 1 Place 2.00 g of ground nutmeg into a 10 mL round-bottomed flask. Add 5 mL of diethyl ether, attach a reflux condenser and heat the mixture to reflux for 30 min on a sand bath.
- 2 After cooling to room temperature, remove the solid residue by filtering through a pad of Celite on a Hirsch funnel. Rinse the flask with ether (2 x 1 mL) and pass this through the Celite pad.
- 3 Transfer the ethereal solution to a clean round-bottomed flask and concentrate on a rotary evaporator.
- 4 Recrystallize the solid residue from hot ethanol. Collect the white product on a clean Hirsch funnel. Allow the solid to dry in your drawer until the next lab session and then obtain the mass and melting point of the trimyristin.

health & safety notes

Diethyl ether is highly flammable.

7b/ extraction of ibuprofen from Advil

procedure

- 1 Crush a single tablet of generic ibuprofen using a mortar and pestle. Transfer the powder to a centrifuge tube and add 1 mL of 3 M HCl.
- 2 After gently agitating the contents of the centrifuge tube, extract with diethyl ether (3 x 2 mL). Dry the organic layer with a plug of MgSO_4 and place it in a 10 mL round-bottomed flask. Remove the solvent using the rotary evaporator.
- 3 Dissolve the crude ibuprofen residue in a minimum amount of hot isopropanol. Allow the solution to cool and add water dropwise until the solution turns cloudy. Place the flask in ice.
- 4 Collect the purified ibuprofen. Allow it to dry completely before obtaining the mass and melting point of your product.

health & safety notes

Diethyl ether is highly flammable. Isopropanol is a flammable liquid and irritant. Aqueous HCl is corrosive.