Chem 220 Exp 65, #1-2 Enzymatic Reduction of a Ketone

Chemical / Substance Name	Per Student	Per Class (20)	Location
Sucrose, solid	200 g	4000 g	Inorganic solids shelf
Disodium hydrogen phosphate	0.6 g	12 g	Inorganic solids shelf
➔ Sodium phosphate, dibasic			
Calcium Chloride pellets, anhydrous, solid	7.5 g	150 g	Inorganic solids shelf
Yeast, fresh	16 g	320 g	Fridge
Ethyl acetoacetate	6 g	120 g	Flammable cabinet (middle room)
Sodium Chloride, solid	240 g	4800 g	Inorganic solids shelf
Diethyl Ether	400 mL	8000 mL	Flammable Fridge (first room)
Calcium Hydroxide, saturated solution	25 mL	500 mL	Inorganic liquids shelf
Methanol / Methyl Alcohol	6 mL	120 mL	Flammable cabinet (last room)
Ethanol /Ethyl alcohol	12.5 mL	250 Liters	Inorganic liquids (shelves)

Other Items	Amount / Quantity	Location
Sand	Determined by class size	Ochem lab
Polarimeter (part 2)	Determined by class size	Instrument room
Diatomaceous earth	1 lb	
500 mL Erlenmeyers	Determined by class size	HS 227
500 mL filter flasks	Determined by class size	HS 227
Box #7 with closer stoppers	Determined by class size	Ochem bookshelves
Large glass and plastic funnels	Determined by class size	Ochem bookshelves / stockroom

Waste

- Organic Non-halogenated liquids

Important! Set oven/incubator to 35-40 degrees + 4 grey tubs to catch overflows.

Solution Preparation

Saturated Calcium Hydroxide

$$1.5\ g\ Ca(OH)_2\ per\ 1000\ mL\ of\ H_2O$$

Or

$$0.10 - 0.30\ g\ Ca(OH)_2\ per\ 30\ ml\ of\ H_2O$$