



# COMPLEX MADE SIMPLE

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BY GLENDA ARENDSE FOR LABCON 2025



# PURPOSE

- **SHARE ideas**
- **Improve EFFICIENCY**
- **Reduce stress**
- **INCREASE HAPPINESS**





# EVERYDAY ISSUES FOR LAB TECHS

## What we have:

- Old things
- Cheap stuff
- Outdated equipment
- Limited experience
- Lots of demands
- Waste accumulation

## What we need:

- New things
- Expensive stuff
- Modern devices
- Savoir faire
- Time & resources
- Help!!!



# SURELY, THERE MUST BE A BETTER WAY!?!?

- Making solutions
- Storing things
- Finding things
- Setting up pracs
- Minimising waste
- Getting rid of waste
- Reducing stress
- Increasing happiness





NOW THAT'S A THOUGHT!



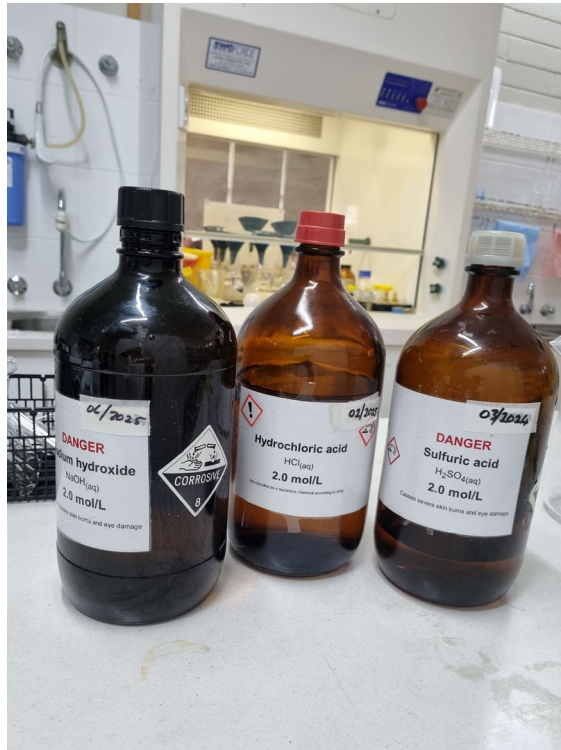
Why didn't I think of that?



# MUST HAVES FOR QUICK PREPS



# HANDY STOCK SOLUTIONS



- MAKE 2M STOCK SOLUTIONS
- CALCULATE THE DILUTION FACTOR
- MAKE DILUTIONS WITH STOPPERED CYLINDERS
- BE CONSISTENT WITH MENISCUS READS
- STOPPER, INVERT, SHAKE & SWIRL

# FLAMING ACID

## - THE STANDARD PROCEDURE



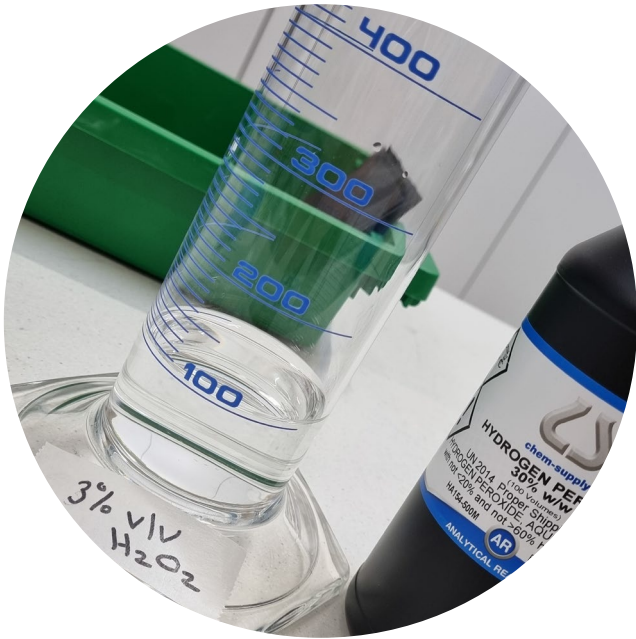
- FLAMING IS A TECHNIQUE USED TO SAFELY ADD ACID TO WATER
- CAREFULLY POUR DOWN THE STIRRING ROD
- OR, CAREFULLY POUR DOWN THE SIDES OF THE BEAKER
- WORK IN A FUMEHOOD





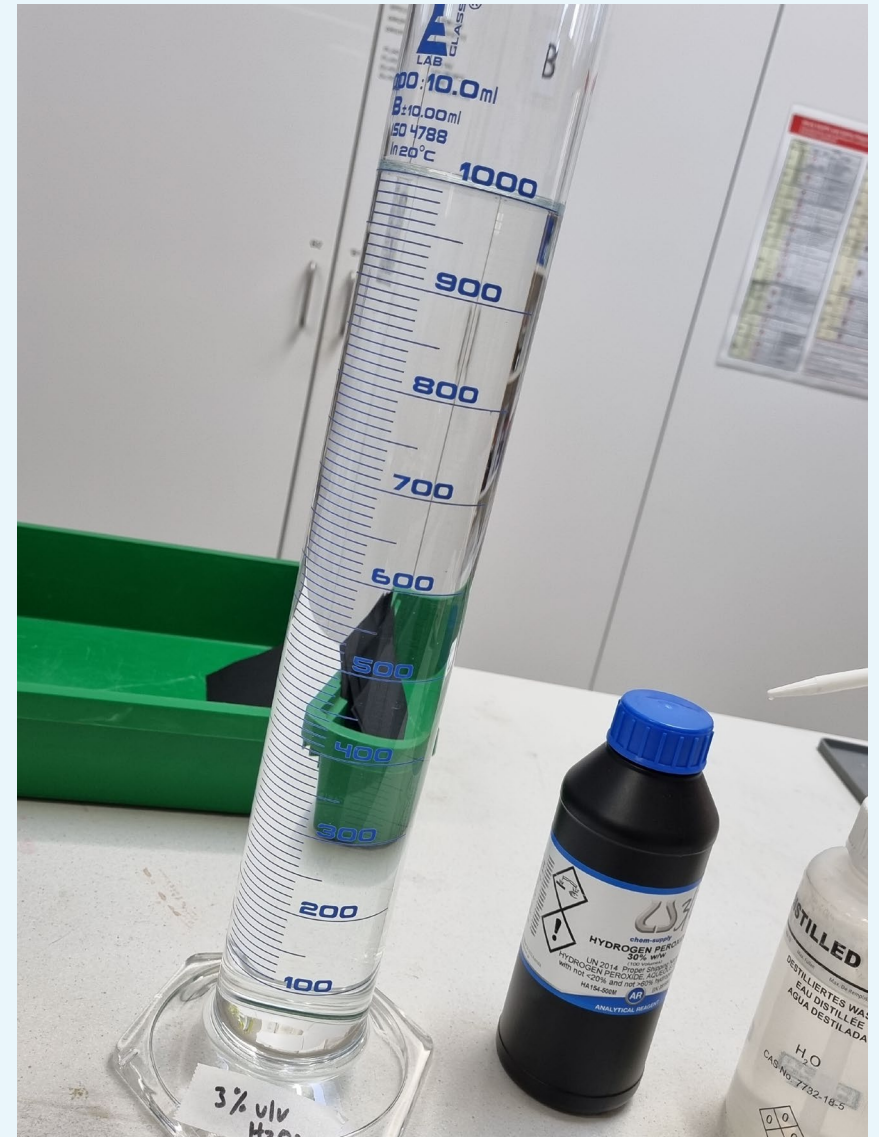
FLAMING WITH ACCURACY



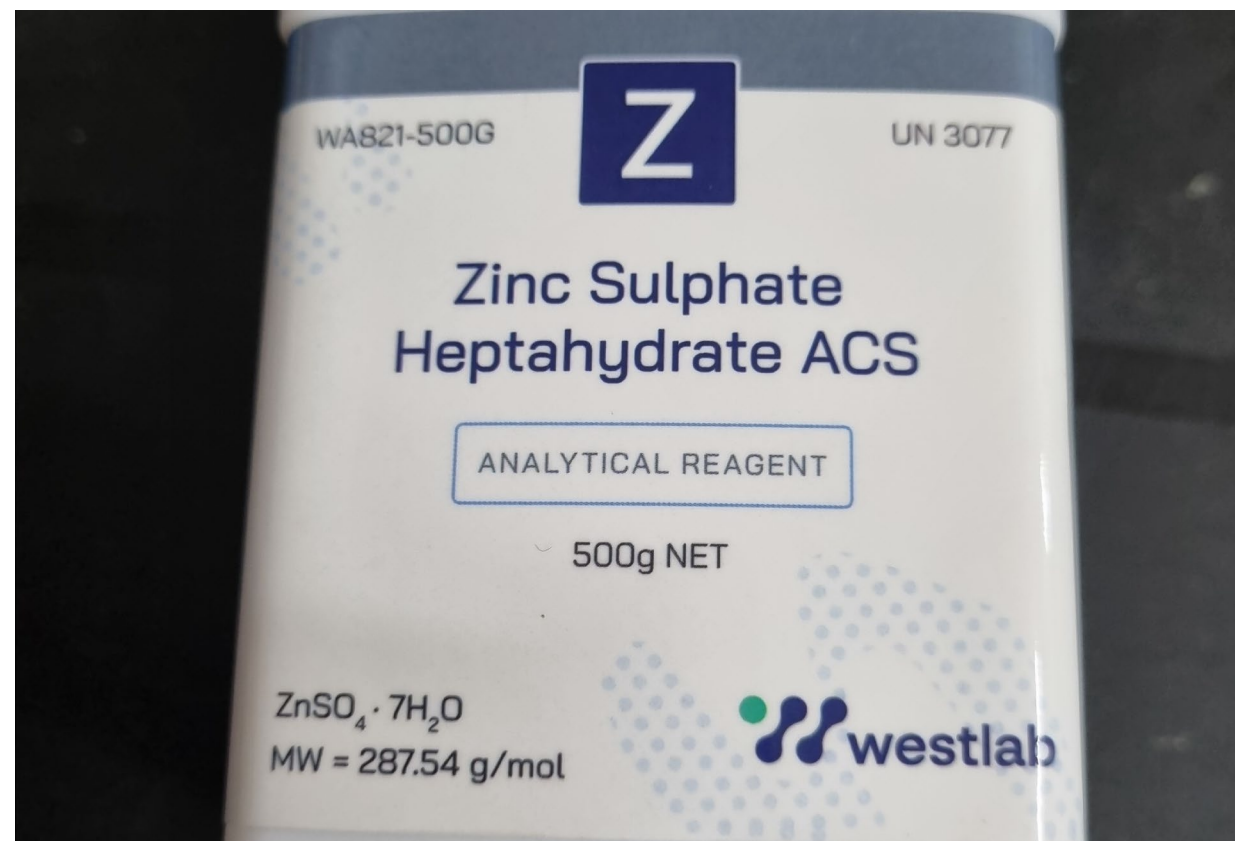
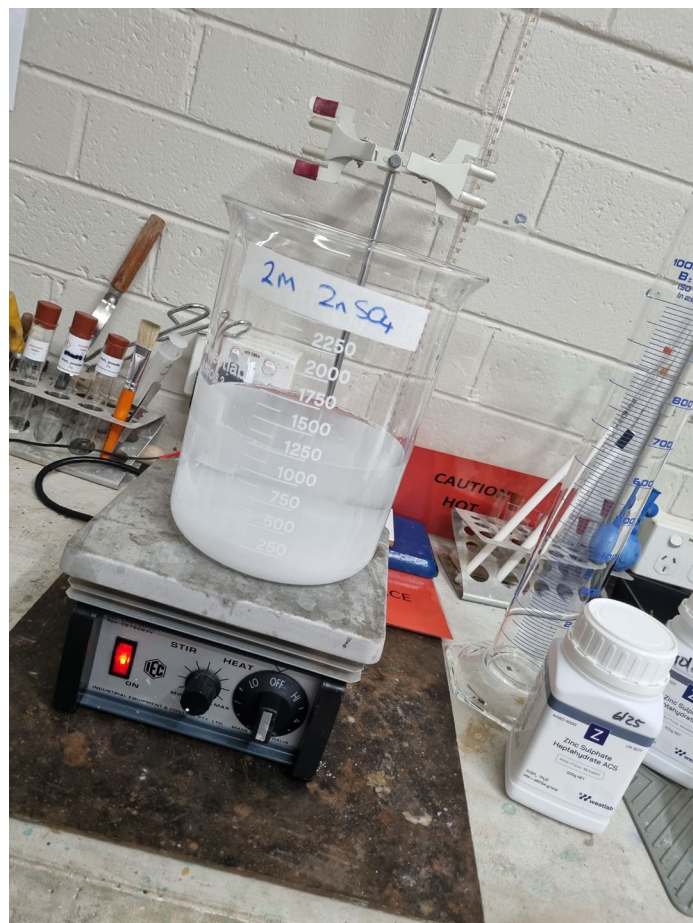


WORKING QUICKLY

V/V      W/V      W/W ?



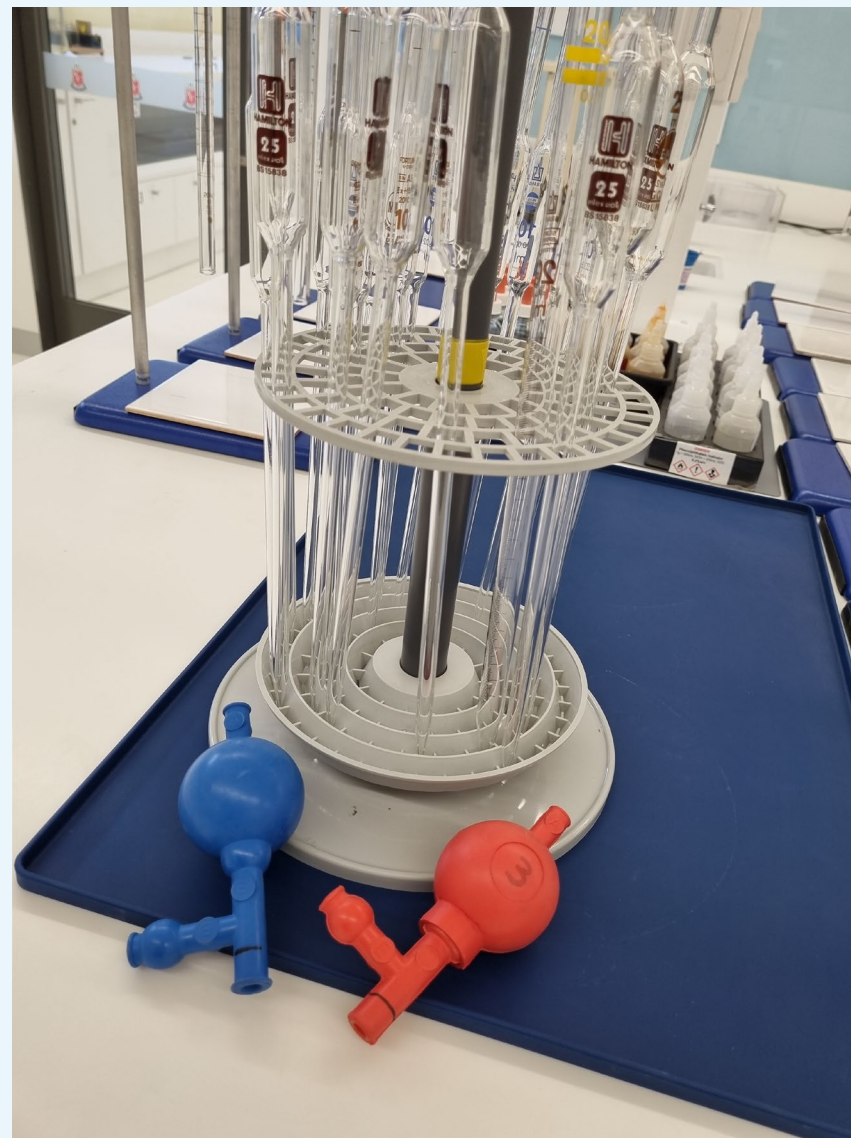
## ECONOMIZING WITH REAGENT GUZZLERS







## STRETCHING SOLUTIONS CONTROL THE USAGE



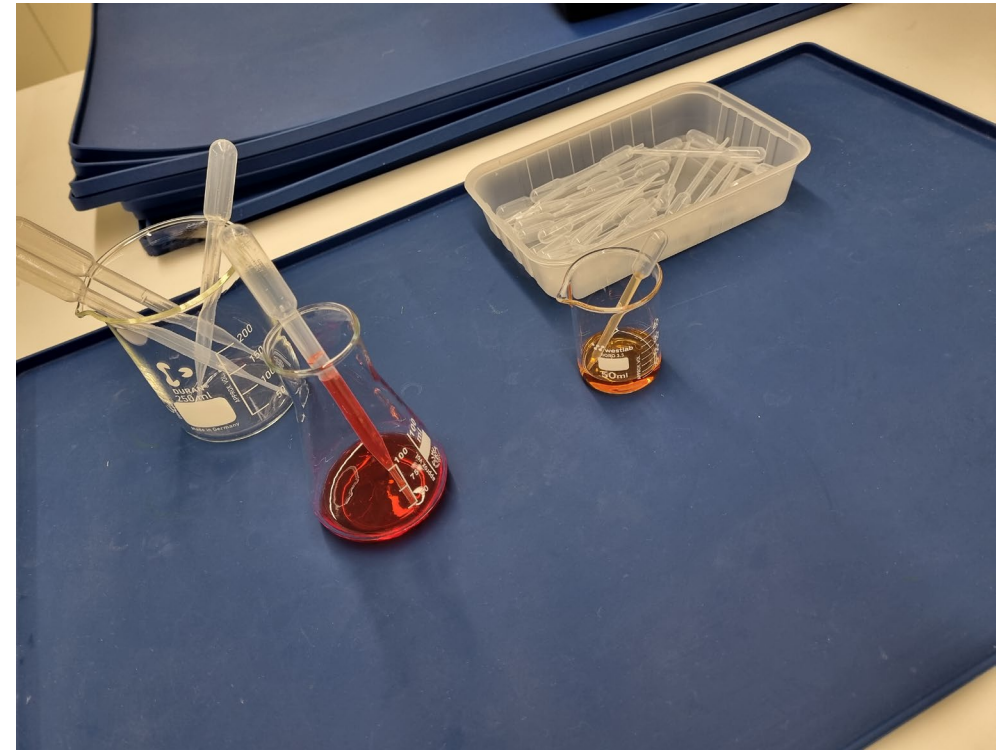
# SCALE DOWN

REDUCE EVERYTHING!





# RATIOS - COMPLEMENT SCALING DOWN!!!





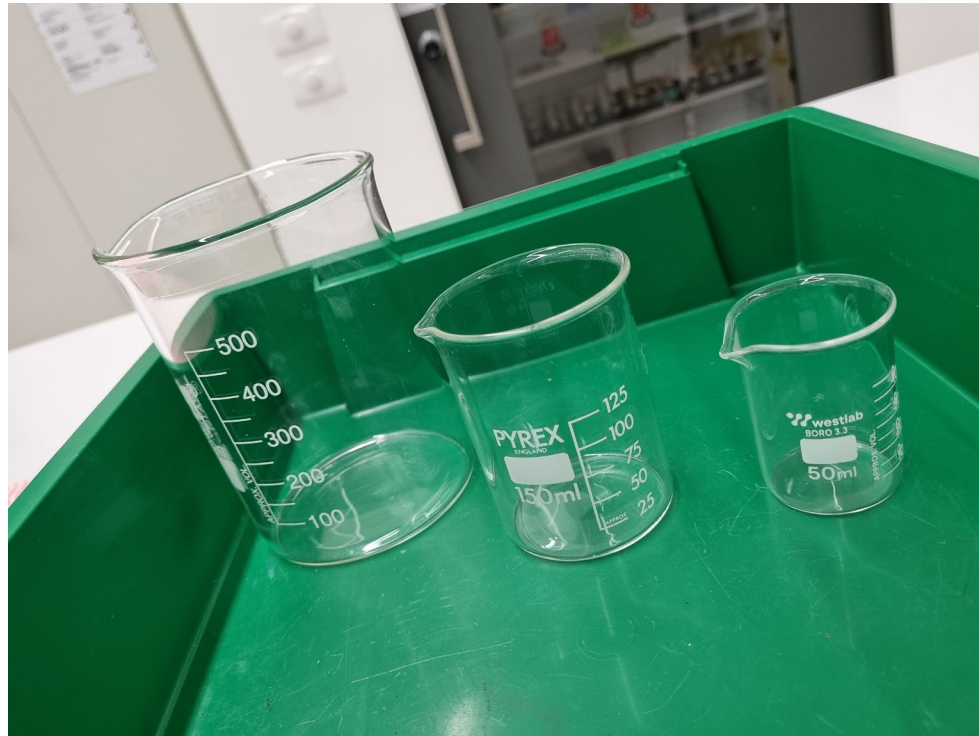
# EPPENDORF-EN FABULOUS!!!

WHEN ACCURACY IS CRUCIAL





# SCALING DOWN – CREATES SPACE,...THE FINAL FRONTIER!



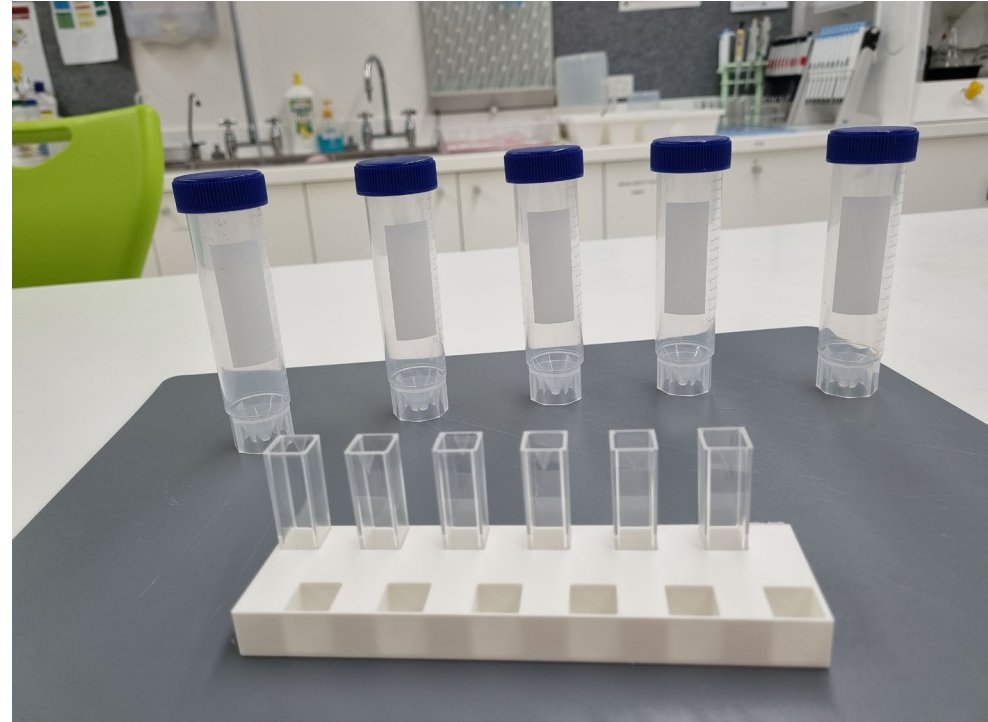
# RE-ITERATING SCALE-DOWN PERKS

- Reduce waste
- Reduce hazards
- Reduce glassware
- Reduce washing-up
- Reduce stress
- Increase happiness



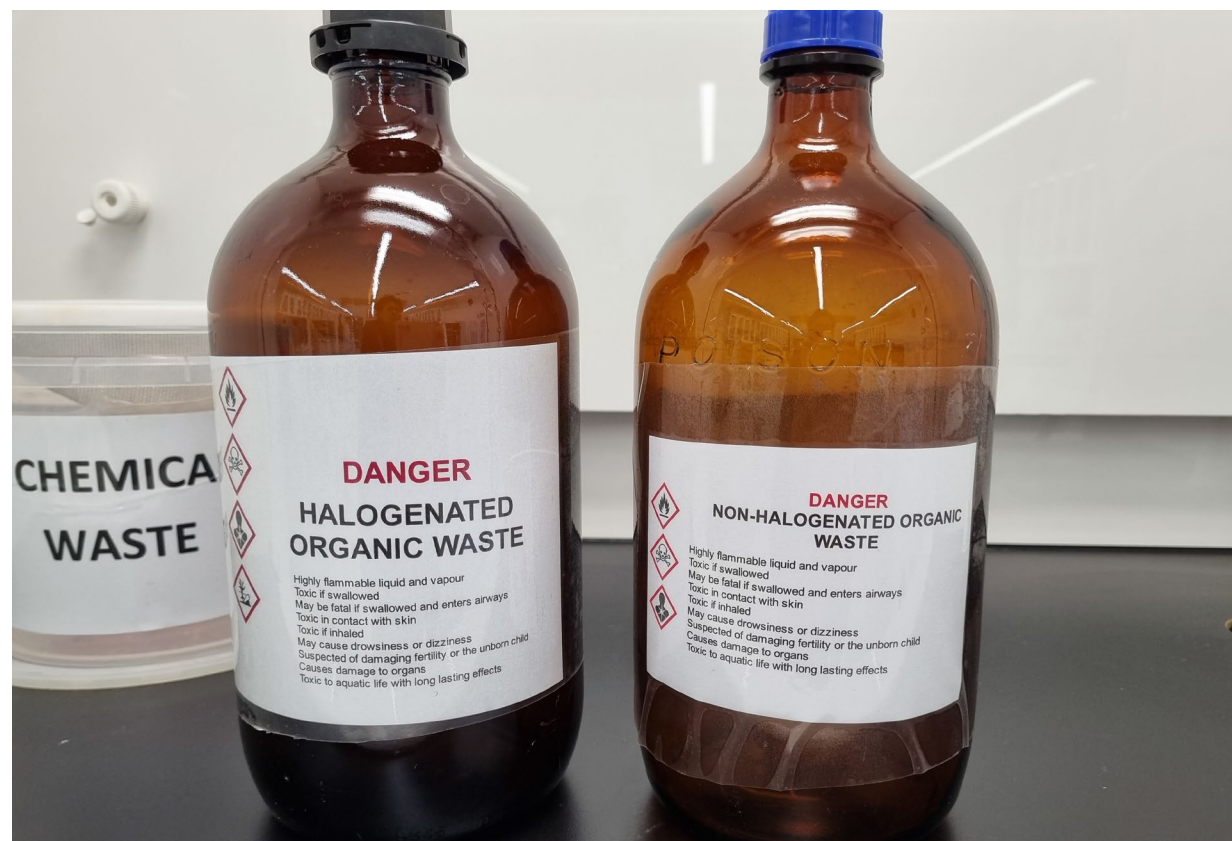
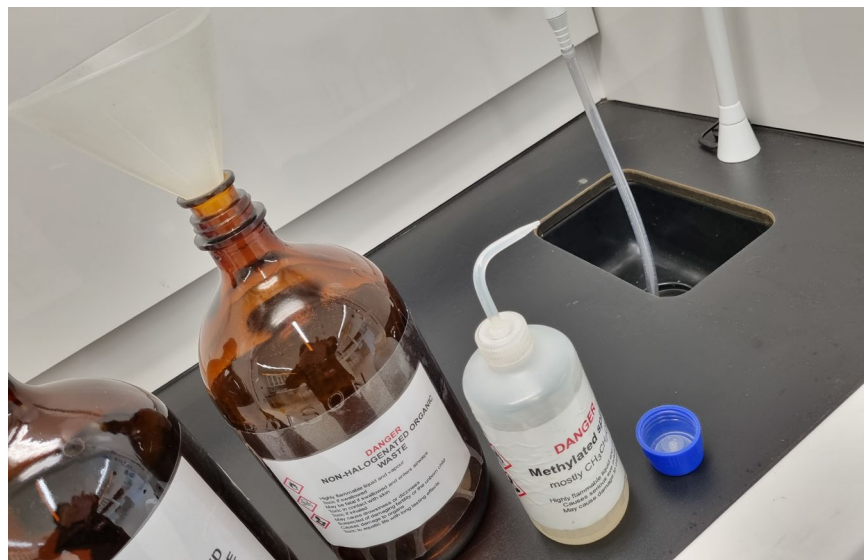


# WORKING SMARTER – INCREASING EFFICIENCY

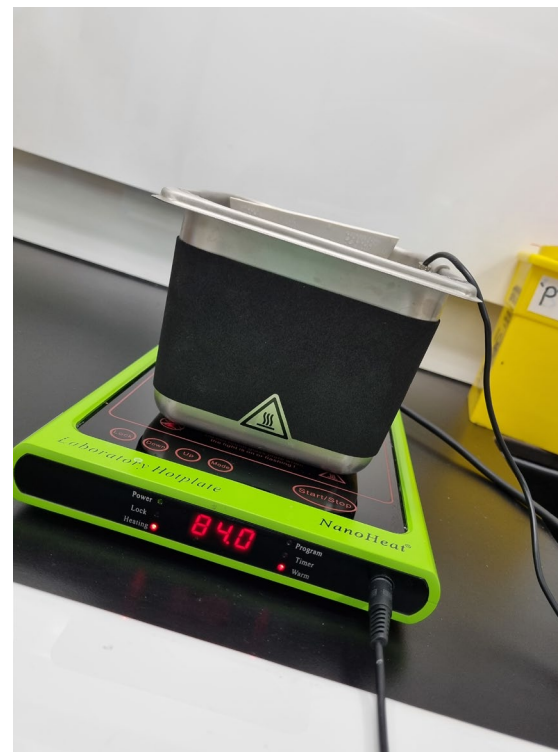




# ORGANIC SOLVENT ISSUES



DON'T PANIC,... IT'S ORGANIC!!! - RELAX WITH A STEAM-BATH!









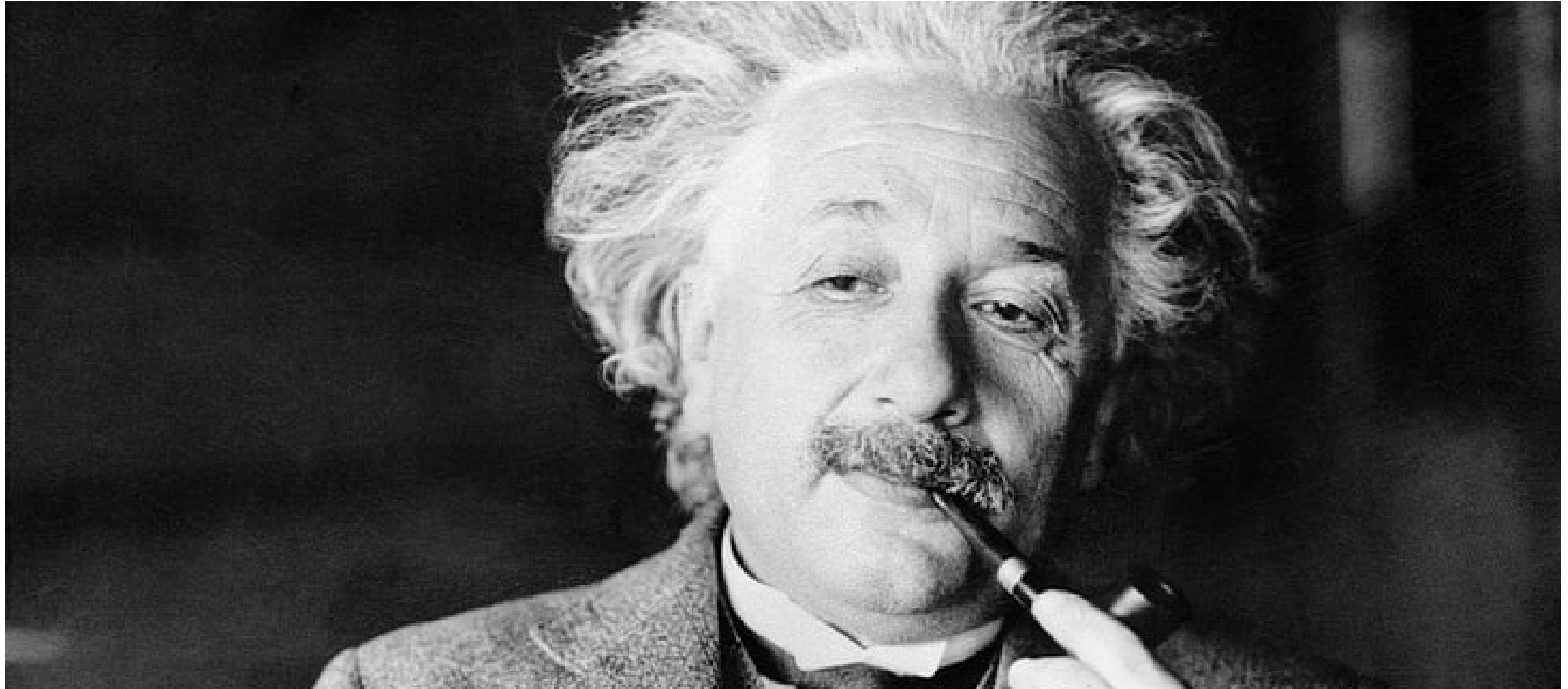
# COMPLEX MADE SIMPLE

SUMMARY- LOGIC & IMAGINATION WORK WELL TOGETHER

- Strategize
- Scale down
- Substitute
- Re-think
- Re-purpose

- DON'T PANIC!
- BE PROACTIVE
- BE RESOURCEFUL
- BE FLEXIBLE
- BE HAPPY

LOGIC WILL GET YOU FROM A – Z  
BUT IMAGINATION WILL GET YOU EVERYWHERE







# THANK YOU



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