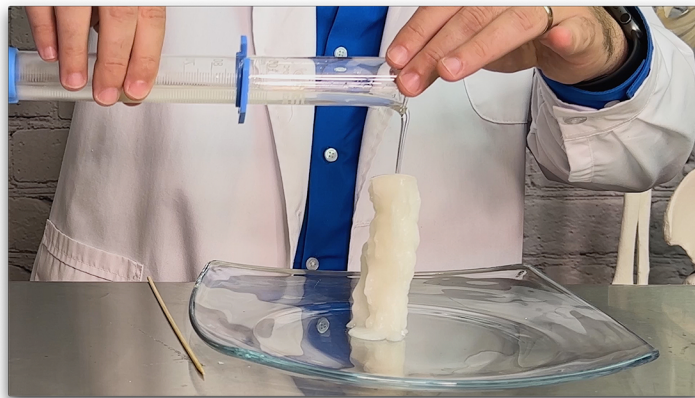


MAKING HOT ICE!

Carefully boiling down vinegar and baking soda gives you Sodium Acetate, which has an amazing reaction when you catalyze a reaction in it: in moments, the liquid becomes a solid crystal!

You can even use it to build a tower that looks like ice.



MATERIALS

- 4 CUPS OF WHITE VINEGAR
- 4 TABLESPOONS OF BAKING SODA
- MEASURING UTENSILS
- A POT
- A STOVE AND SOMEONE WHO CAN USE IT
- A GLASS, HEATPROOF DISH (A CLEAR JAR IS GREAT)
- SKEWERS
- TIME AND PATIENCE

PROCEDURE

1. ADD YOUR VINEGAR TO YOUR POT.
2. SLOWLY ADD YOUR BAKING SODA, ONE TABLESPOON AT A TIME. THE TWO SUBSTANCES WILL REACT AS YOU ADD THE POWDER, LET IT FIZZLE OUT BEFORE YOU ADD MORE. STIR UNTIL DISSOLVED.
3. ON THE STOVE, OVER A VERY LOW HEAT, LET YOUR SOLUTION SIT FOR ABOUT AN HOUR. IF THE HEAT IS TOO HIGH, THE LIQUID WILL TURN YELLOWISH-BROWN; THIS WILL STILL WORK SO DON'T WORRY IF THIS HAPPENS. THIS STEP IS DONE WHEN YOU SEE SMALL WHITE CRYSTALS FORMING ON TOP OF YOUR LIQUID. MAKE SURE TO TURN OFF THE STOVE.
4. POUR THE LIQUID INTO A HEATPROOF DISH. COVER WITH ALUMINUM FOIL AND PUT IT IN THE REFRIGERATOR. THIS IS TO REMOVE EXCESS HEAT AND CAN TAKE ANYWHERE BETWEEN 1-2 HOURS.
5. BACK AT YOUR STOVETOP, USE A SKEWER TO SCRAPE THE WHITE CRYSTALS FROM THE SIDE AND BOTTOM OF YOUR POT. KEEP THESE, THEY ARE YOUR SEED CRYSTALS TO BEGIN YOUR REACTION.
6. ADD A SEED CRYSTAL TO YOUR SOLUTION TO WATCH THE LIQUID CHANGE TO A SOLID. OR POUR THE LIQUID ONTO SOME SEED CRYSTALS TO FORM A TOWER THAT LOOKS LIKE IT'S MADE OF ICE!
7. YOU CAN PUT YOUR CRYSTALS INTO A HEATPROOF DISH AND INTO A POT OF GENTLY BOILING WATER TO TURN THE CRYSTALS BACK INTO A LIQUID SO YOU CAN REPEAT YOUR EXPERIMENT!

THIS EXPERIMENT IS GREAT FOR BEGINNER EXPLORERS, USES HOUSEHOLD INGREDIENTS, AND NEEDS A STOVE ALONG WITH ADULT SUPERVISION. TIME AND PATIENCE WILL BE REQUIRED.

