



MAKE HOT ICE

Clear out the kitchen for a fun chemistry experiment that's so hot it's cool!

WHAT YOU'LL NEED:

- 4 cups white vinegar
- 4 tablespoons baking soda
- Saucepan
- Stove
- Wooden spoon
- Glass measuring cup or bowl, made from heat-safe glass
- Plastic wrap
- Refrigerator
- Baking Sheet



HOW TO DO IT:

1. Pour the vinegar into the saucepan. Slowly add in the baking soda, stirring gently. If you add the baking soda too quickly it will react with the vinegar – if you've made a baking soda and vinegar volcano, you know what this looks like! Save the lava for some other time.
2. With the help of a parent, slowly bring to a boil. This process will concentrate the solution. Boil until a crystal film begins to form on the surface. At low heat, this will take about an hour.
3. Remove from heat and pour into a glass measuring cup or bowl and cover with plastic wrap. Make sure there are no crystals in the solution. If you do, add a small amount of vinegar to dissolve the crystals. Be sure to not touch the solution or slosh it around too much, or it will form crystals.
4. Let the solution chill in the refrigerator until it's cold.
5. While the solution is in the fridge, carefully scrape off and save some of the crystals that formed on the pot while concentrating the solution.
6. Once the solution is cold, you're ready to experiment! Grab the baking sheet and sprinkle on some of the crystals you saved. Slowly pour on some of the solution and watch what happens! Is the solution warm or cold?
7. You've created sodium acetate! This is a super cooled liquid, which means that it exists in liquid form below its melting point. Simply touching it can make it solid again! This will cause the solution to crystallize and as it does, it releases heat, creating hot "ice!"

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