IDENTIFICATION OF HOUSEHOLD "CHEMICALS" INSTRUCTIONS

PART I: (Procedure Steps 1 - 6) - UNKNOWN

1. PERFORM TESTS ON UNKNOWN
   
   OBTAIN UNKNOWN FROM TA.

1.1. DO SOLUBILITY / REACTIVITY TESTS IN WATER, VINEGAR, AMMONIA, AND RUBBING ALCOHOL.
   
   Use \( \frac{1}{4} \) spatulaful of substance and 2 mL of solvent

1.1.1. SOLUBILITY / REACTIVITY WITH WATER
   
   USE SAME SAMPLE TO DO

1.1.2. pH TEST and

1.1.3. REACTIVITY TEST WITH TINCTURE OF IODINE -
   
   Add a few drops of tincture of iodine to solution of your unknown and observe any changes.

1.1.4. SOLUBILITY / REACTIVITY WITH AMMONIA

1.1.5. SOLUBILITY / REACTIVITY WITH VINEGAR

1.1.6. SOLUBILITY / REACTIVITY WITH ISOPROPYL ALCOHOL

1.2. HEATING TEST ON SOLID SAMPLE IN A DRY TEST TUBE
   
   TRANSFER OBSERVATIONS TO POSTED CHART AS SOON AS EACH TEST IS COMPLETED.

1.3. CONSULT COLLECTIVE RESULTS TO IDENTIFY STUDENTS WHOSE UNKNOWN SHOWS SIMILAR TEST RESULTS AS YOURS. CONFIRM WITH TA.
PART II  (Step 7 of the procedure) AUTHENTIC SAMPLES

WORK WITH PARTNERS AS FOLLOWS:

2.1. CONSULT POSTED TABLE TO DETERMINE PROPERTIES OF YOUR UNKNOWN WHICH DISCRIMINATE YOUR UNKNOWN FROM OTHERS.

PERFORM ONLY THOSE TESTS ON PROVIDED NINE AUTHENTIC SAMPLES NECESSARY TO NARROW POSSIBILITY OF KNOWNS AS YOUR UNKNOWN.

2.2. PERFORM ALL SEVEN TESTS ON THE KNOWN WHICH YOU BELIEVE IS YOUR UNKNOWN

PART III:  (Steps 8 -10 of the procedure) CONFIRMATION

CONFIRM YOUR UNKNOWNS AS FOLLOWS:

3.1. IF YOU BELIEVE YOUR UNKNOWN IS: SOUR SALT, UREA, ASCORBIC ACID OR ASPIRIN:

DETERMINE MELTING POINT OF YOUR SAMPLE AND AN AUTHENTIC SAMPLE

3.2. FOR OTHER POSSIBILITIES: POTASSIUM HYDROGEN TARTRATE, LIMESTONE, WASHING SODA, HYPO OR BORAX

DO FLAME TEST

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