

Name: _____

**Chemical Reactions
in Everyday Life**

DATA SHEET

I. Reaction Grid

Write chemical equations for each of the mixtures listed. If no observable reaction occurred, write "NO RXN" and explain why a reaction was not observed. But, if reactants are an acid and a base, write a chemical equation.

Sulfuric Acid

w/ Ammonia

w/ Potassium Hydroxide

w/ Barium Chloride

w/ Silver Nitrate

w/ Sodium Hydrogen Phosphate

w/ Zinc Sulfate

w/ Hydrochloric Acid

w/ Ammonium Carbonate

Ammonium Carbonate

w/ Ammonia

w/ Potassium Hydroxide

w/ Barium Chloride

w/ Silver Nitrate

w/ Sodium Hydrogen Phosphate

w/ Zinc Sulfate

w/ Hydrochloric Acid

Hydrochloric Acid

w/ Ammonia

w/ Potassium Hydroxide

w/ Barium Chloride

w/ Silver Nitrate

w/ Sodium Hydrogen Phosphate

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w/ Zinc Sulfate

Zinc Sulfate
w/ Ammonia

w/ Potassium Hydroxide

w/ Barium Chloride

w/ Silver Nitrate

w/ Sodium Hydrogen Phosphate

Sodium Hydrogen Phosphate
w/ Ammonia

w/ Potassium Hydroxide

w/ Barium Chloride

w/ Silver Nitrate

Silver Nitrate
w/ Ammonia

w/ Potassium Hydroxide

w/ Barium Chloride

Barium Chloride
w/ Ammonia

w/ Potassium Hydroxide

Potassium Hydroxide
w/ Ammonia

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II. Unknown Analysis

Unknown Substance _____

Record your observations in the table below.

Test Solutions	Observations
Phenolphthalein	
Ammonia	
Sulfuric Acid	
Barium Chloride	
Silver Nitrate	
Sodium Hydrogen Phosphate	
Zinc Sulfate	
Hydrochloric Acid	
Potassium Hydroxide	
Ammonium Carbonate	

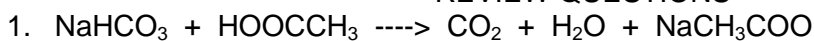
Observation from flame test: _____

Based upon the above observations and the observations recorded on the reaction grid, hypothesize what ion or ions might be present in your unknown.

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REVIEW QUESTIONS



Based on the above equation for the reaction of baking soda with vinegar, hypothesize why a cake "rises".

2. Assume you were given a sample of KBr. Based on your observations in this experiment, explain what you would observe when a solution of the KBr sample reacted with each of the following solutions.

SOLUTION	OBSERVATIONS
Phenolphthalein	
Ammonia	
Sulfuric Acid	
Barium Chloride	
Silver Nitrate	
Sodium Hydrogen Phosphate	
Zinc Sulfate	
Hydrochloric Acid	
Potassium Hydroxide	
Ammonium Carbonate	

3. When dissolving your unknown, why is it important to use distilled water? Try mixing some silver nitrate solution with tap water and see what happens!
4. Why is it unwise to haphazardly mix household chemicals?
5. Why is it important to use only clean reaction containers?
6. Why do we dispose of all reaction products in a "heavy metal" waste container?