

Student Sheet

Name _____

Title: Ionic Compounds In Solutions

Introduction: Ionic compounds can be described in several ways. The solid substances can be a powder or crystalline (reflecting light). They form solutions in water that can be opaque or transparent. The color of the substance and its solution are also important ways they can be identified. In this activity, you will see 18 ionic compounds and their solutions. Look for ways these substances are alike and different.

Procedures:

1. Observe the solid compounds and their corresponding solutions. In the spaces below record the physical descriptions of the solid (color, reflectivity, particle size or shape) Then describe the color and transparency of the corresponding aqueous (in water) solution.
2. If the name is given for the sample, write the correct ionic formula (look up charges on your Periodic Table and Polyatomic Ion sheet and balance to zero.) If the formula is given, write the name.

Data

Substance Name	Formula	Description	Aqueous solution
Potassium iodide			
Sodium chloride			
Magnesium sulfate			
Copper (II) sulfate			
	NaHCO ₃		
	AgNO ₃		
	KCN		
Copper (II) oxide			
Iron (II) sulfate			
Iron (III) nitrate			
Aluminum nitrate			
Copper (II) Carbonate			

Ammonium dichromate			
Nickel (II) nitrate			
	Zn(NO ₃) ₂		
	FeCl ₃		
	CoCl ₂		
	CuCl ₂		

Analysis:

1. What characteristics did many of the compounds have in common?
2. How were they different?
3. Do you see any patterns in the solutions of the different compounds?
4. Why do ionic compounds dissolve in water?