Name:

**Compounds with Polyatomic Ions**

**A. Write correct formula for these compounds. They all contain polyatomic ions.**

1.ammonium chloride \_\_\_NH4Cl\_\_\_\_\_\_\_

2. sodium chlorate – NaClO3

3. sodium sulphate – Na2SO4

4. potassium sulphite – K2SO3

5. calcium phosphate – Ca3(PO4)2

6. calcium hydroxide – Ca(OH)2

7. iron (III) hydroxide – Fe(OH)3

8. copper (II) sulphate – CuSO4

9. sodium phosphite – Na3PO3

10. ammonium hydroxide – NH4OH

**B. Name the following compounds which contain polyatomic ions.**

1. CaCO3 \_\_\_calcium carbonate\_\_\_\_\_\_\_\_

2. NaHCO3 – sodium bicarbonate

3. NH4OH – ammonium hydroxide

4. H2SO4 – hydrogen sulfate

5. NaNO3 – sodium nitrate

6. Fe2(CO3)3 – iron (III) carbonate

7. Al2(SO4)3 – aluminum (III) sulfate

8. HOH – hydrogen hydroxide

9. Ca(NO3)2 – calcium nitrate

10. Li2CO3 – lithium carbonate

**Chemistry Room Practice**

All of the bottle of solid chemicals at the front are missing either a name or a formula. You will find a combination of:

* Ones with a simple metal and non-metal element
* One using a multivalent metal (name with roman numerals!)
* Ones using polyatomic groups (use brackets in formula if needed!)

Make sure you look at the number on the top of the container and put your answer in the correct place.

|  |  |  |
| --- | --- | --- |
| Container # | Compound Name | Compound Formula |
| 1 | ***Sodium carbonate*** | Na2CO3 |
| 2 | ***Nickel (II) nitrate*** | Ni(NO3)2 |
| 3 | Potassium hydroxide | ***KOH*** |
| 4 | Potassium carbonate | ***K2CO3*** |
| 5 | Ammonium nitrate | ***NH4NO3*** |
| 6 | Lead (II) nitrate | ***Pb(NO3)2*** |
| 7 | ***Copper (II) sulfate*** | CuSO4 |
| 8 | Magnesium sulfate | ***MgSO4*** |
| 9 | Aluminum nitrate | ***Al(NO3)3*** |
| 10 | Sodium phosphate | ***Na3PO4*** |
| 11 | ***Ammonium carbonate*** | (NH4)2CO3 |
| 12 | Copper (II) carbonate | ***CuCO3*** |
| 13 | Calcium phosphate | ***Ca3(PO4)2*** |
| 14 | *Iron (III) oxide* | Fe2O3 |
| 15 | Iron (II) chloride | ***FeCl2*** |
| 16 | ***Iron (III) sulfate*** | Fe2(SO4)3 |
| 17 | Nickel (II) sulphate | ***NiSO4*** |
| 18 | ***Potassium permanganate*** | KMnO4 |
| 19 | Barium nitrate | ***Ba(NO3)2*** |
| 20 | ***Cobalt (II) chloride*** | CoCl2 |