Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class \_\_\_\_\_\_\_

**Naming Covalent Compounds Worksheet**

*Write the formulas for the following covalent compounds:*

*For the following compounds, label each as ionic or covalent (A, I, or C) and write the correct formula or name.*

21) silver chloride **AgCl**

**A** 22) sulfurous acid

23) tin (IV) nitrite **Sn(NO2)2**

**A** 24) hydrchloric acid

25) sulfur hexafluoride **SF6**

**C** 26) carbon tetrachloride

27) iodic acid **HIO3**

**C** 28) arsenic triiodide

29) copper (I) oxide **Cu2O**

**I** 30) aluminum bromide

31) HBr **hydrobromic acid**

**A** 32) HC2H3O2

33) P2O5 **diphosphorous pentoxide**

**I** 34) Ti(SO4)2

35) H3PO4 **phosphoric acid**

**C** 36) K3N

37) SO2 **sulfur dioxide**

**I** 38) CuOH

39) Zn(NO2)2 **Zinc nitrite**

**C** 40) V2S3

1) antimony tribromide **SbBr3**

2) hexaboron silicide

3) chlorine dioxide **ClO2**

4) hydrogen monoiodide

5) iodine pentafluoride **IF5**

6) dinitrogen tetroxide

7) ammonia **NH4**

8) phosphorus triiodide

*Write the names for the following covalent compounds:*

9) P4S5­ **tetraphosphorous pentasulfide**

10) O2

11) SeF6 **selenium hexafluoride**

12) Si2Br­6

13) SCl4 **sulfur tetrachloride**

14) CH4

15) B2Si **diboron silicide**

16) NF3

17) PH3 **phosphorous trihydride**

18) CO

19) HI **hydrogen iodide**

20) N2O3

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class \_\_\_\_\_\_\_\_

Naming Acidic Compounds

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Anion | Anion Name | Acid Formula | Acid Name |
| Ex. | F- | fluoride | HF | Hydrofluoric acid |
| 1 | Cl- | **chloride** |  | Hydrochloric acid |
| 2 | Br- | **bromide** |  |  |
| 3 | I- | **iodide** | HI |  |
| 4 | S2- | **sulfide** |  | Hydrosulfuric acid |
| 5 | NO3- | **nitrate** |  |  |
| 6 | C2H3O2- | **acetate** | HC2H3O2 |  |
| 7 | SO42- | **sulfate** |  | Sulfuric acid |
| 8 | CO32- | **carbonate** |  |  |
| 9 | PO43- | **phosphate** | H3PO4 |  |
| 10 | ClO¯ | **perchlorite** |  | Perchlorous acid |
| 11 | ClO2¯ | **chlorite** |  |  |
| 12 | ClO3¯ | **chlorate** | HClO3 |  |
| 13 | ClO4¯ | **hypochlorate** |  | Hypochloric acid |
| 14 | NO2¯ | **nitrite** |  |  |
| 15 | SO32- | **sulfite** | N2SO3 |  |
| 16 | IO3¯ | **iodate** |  | Iodic acid |

Mixed Compound Naming:  *Identify each compound as ionic, covalent, or acidic & name it*.

1) Na2CO3 **sodium carbonate**

**C** 2) P2O5

3) NH3 **nitrogen trihydride**

**I** 4) FeSO4

5) SiO2 **sulfur dioxide**

**A** 6) H2CO3

7) GaCl3 **gallium choride**

**I** 8) CoBr2

9) B2H4 **diboron tetrahydride**

**C** 10) CO

11) P4 **phosphorous**

**A** 12) HNO2

13) dinitrogen trioxide **N2O3**

**A** 14) hydrochloric acid

15) chloric acid **HClO3**

**C** 16) nitrogen

17) nitric acid **HNO3**

**I** 18) lithium acetate

19) phosphorus trifluoride **PF3**

**I** 20) vanadium (V) oxide

21) aluminum hydroxide **Al(OH)3**

**I** 22) zinc sulfide

23) silicon tetrafluoride **SiF4**

**I** 24) silver phosphate

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class \_\_\_\_\_\_\_

**Naming Covalent Compounds Worksheet**

*Write the formulas for the following covalent compounds:*

*For the following compounds, label each as ionic or covalent (A, I, or C) and write the correct formula or name.*

\_\_\_\_ 21) silver chloride \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ 22) sulfurous acid \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ 23) tin (IV) nitrite \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ 24) hydrchloric acid\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ 25) sulfur hexafluoride \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ 26) carbon tetrachloride\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ 27) iodic acid\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ 28) arsenic triiodide\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ 29) copper (I) oxide\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ 30) aluminum bromide\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ 31) HBr \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ 32) HC2H3O2\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ 33) P2O5 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ 34) Ti(SO4)2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ 35) H3PO4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ 36) K3N \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ 37) SO2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ 38) CuOH \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ 39) Zn(NO2)2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_ 40) V2S3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1) antimony tribromide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2) hexaboron silicide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3) chlorine dioxide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4) hydrogen monoiodide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5) iodine pentafluoride \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6) dinitrogen tetroxide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7) ammonia \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8) phosphorus triiodide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Write the names for the following covalent compounds:*

9) P4S5­ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10) O2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11) SeF6 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12) Si2Br­6 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13) SCl4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

14) CH4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

15) B2Si \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

16) NF3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

17) PH3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

18) CO \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

19) HI \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

20) N2O3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class \_\_\_\_\_\_\_\_

Naming Acidic Compounds

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Anion | Anion Name | Acid Formula | Acid Name |
| Ex. | F- | fluoride | HF | Hydrofluoric acid |
| 1 | Cl- |  |  |  |
| 2 | Br- |  |  |  |
| 3 | I- |  |  |  |
| 4 | S2- |  |  |  |
| 5 | NO3- |  |  |  |
| 6 | C2H3O2- |  |  |  |
| 7 | SO42- |  |  |  |
| 8 | CO32- |  |  |  |
| 9 | PO43- |  |  |  |
| 10 | ClO¯ |  |  |  |
| 11 | ClO2¯ |  |  |  |
| 12 | ClO3¯ |  |  |  |
| 13 | ClO4¯ |  |  |  |
| 14 | NO2¯ |  |  |  |
| 15 | SO32- |  |  |  |
| 16 | IO3¯ |  |  |  |

Mixed Compound Naming:  *Identify each compound as ionic, covalent, or acidic & name it*.

\_\_\_\_\_ 1) Na2CO3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_ 2) P2O5 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_ 3) NH3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_ 4) FeSO4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_ 5) SiO2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_ 6) H2CO3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_ 7) GaCl3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_ 8) CoBr2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_ 9) B2H4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_ 10) CO \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_ 11) P4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_ 12) HNO2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_ 13) dinitrogen trioxide \_\_\_\_\_\_\_\_

\_\_\_\_\_ 14) hydrochloric acid \_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_ 15) chloric acid \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_ 16) nitrogen \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_ 17) nitric acid \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_ 18) lithium acetate \_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_ 19) phosphorus trifluoride \_\_\_\_\_

\_\_\_\_\_ 20) vanadium (V) oxide \_\_\_\_\_\_\_\_

\_\_\_\_\_ 21) aluminum hydroxide \_\_\_\_\_\_

\_\_\_\_\_ 22) zinc sulfide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_ 23) silicon tetrafluoride \_\_\_\_\_\_\_\_

\_\_\_\_\_ 24) silver phosphate \_\_\_\_\_\_\_