

Standard: (#4-5)
Chemistry
Acid Nomenclature
ChemAcid1

Convert the following to names to chemical formulas (indicate type of acid)

| | Anion | Type | Formula |
|----------------------|---|--------|-----------------------------------|
| 1. Hydrochloric acid | = Cl^{-1} | nonoxy | HCl |
| 2. Sulfuric acid | = SO_4^{-2} | oxy | H_2SO_4 |
| 3. Carbonic Acid | = CO_3^{-2} | oxy | H_2CO_3 |
| 4. Hydrofluoric Acid | = F^{-1} | nonoxy | HF |
| 5. Acetic Acid | = $\text{C}_2\text{H}_3\text{O}_2^{-1}$ | oxy | $\text{HC}_2\text{H}_3\text{O}_2$ |
| 6. Oxalic acid | = $\text{C}_2\text{O}_4^{-2}$ | oxy | $\text{H}_2\text{C}_2\text{O}_4$ |
| 7. Hypochlorous acid | = ClO^{-1} | oxy | HClO |
| 8. Bromic acid | = BrO_3^{-1} | oxy | HBrO_3 |
| 9. Hydrobromic acid | = Br^{-1} | nonoxy | HBr |
| 10. Bromous acid | = BrO_2^{-1} | oxy | HBrO_2 |
| 11. Nitrous acid | = NO_2^{-1} | oxy | HNO_2 |
| 12. Phosphoric acid | = PO_4^{-3} | oxy | H_3PO_4 |
| 13. Hydrocyanic acid | = CN^{-1} | nonoxy | HCN |
| 14. Dichromic acid | = $\text{Cr}_2\text{O}_7^{-2}$ | oxy | $\text{H}_2\text{Cr}_2\text{O}_7$ |
| 15. Hydronitric acid | = NO_3^{-1} | oxy | H_3N |

Convert the following formulas to chemical names

| | Anion | Type | Name |
|--|---------------|--------|--------------------|
| 1. $\text{H}_2\text{S}_{(\text{aq})}$ | = sulfide | nonoxy | hydrosulfuric acid |
| 2. $\text{H}_2\text{SO}_{4(\text{aq})}$ | = sulfate | oxy | sulfuric acid |
| 3. $\text{H}_3\text{PO}_{4(\text{aq})}$ | = phosphate | oxy | phosphoric acid |
| 4. $\text{HF}_{(\text{aq})}$ | = fluoride | nonoxy | hydrofluoric acid |
| 5. $\text{H}_2\text{CO}_{3(\text{aq})}$ | = carbonate | oxy | carbonic acid |
| 6. $\text{HI}_{(\text{aq})}$ | = iodide | nonoxy | hydroiodic acid |
| 7. $\text{HClO}_{4(\text{aq})}$ | = perchlorate | oxy | perchloric acid |
| 8. $\text{HIO}_{3(\text{aq})}$ | = iodate | oxy | iodic acid |
| 9. $\text{HCN}_{(\text{aq})}$ | = cyanide | nonoxy | hydrocyanic acid |
| 10. $\text{HCl}_{(\text{aq})}$ | = chloride | nonoxy | hydrochloric acid |
| 11. $\text{H}_2\text{SO}_{3(\text{aq})}$ | = sulfite | oxy | sulfurous acid |
| 12. $\text{H}_2\text{C}_2\text{O}_{4(\text{aq})}$ | = oxalate | oxy | oxalic acid |
| 13. $\text{HNO}_{2(\text{aq})}$ | = nitrite | oxy | nitrous acid |
| 14. $\text{HC}_2\text{H}_3\text{O}_{2(\text{aq})}$ | = acetate | oxy | acetic acid |
| 15. $\text{HBrO}_{2(\text{aq})}$ | = bromite | oxy | bromous acid |

Standard: #3-1,3 & #4-5

Chemistry

Nomenclature Mix 2

ChemNomMix2.doc

Convert the following chemical formulas to written names.

| | NAME | Named as a(n) |
|--|----------------------------------|---------------|
| 1. $\text{HF}_{(\text{aq})}$ | = hydrofluoric acid | non oxyacid |
| 2. $(\text{NH}_4)_2\text{S}_{(\text{aq})}$ | = ammonium sulfide | ionic |
| 3. CCl_4 | = carbon tetrachloride | covalent |
| 4. $\text{HC}_2\text{H}_3\text{O}_2_{(\text{aq})}$ | = acetic acid | oxyacid |
| 5. HCl | = hydrochloric acid | nonoxyacid |
| 6. $\text{HClO}_{(\text{aq})}$ | = hypochlorous acid | oxyacid |
| 7. $\text{HClO}_2_{(\text{aq})}$ | = chlorous acid | oxyacid |
| 8. $\text{HClO}_4_{(\text{aq})}$ | = perchloric acid | oxyacid |
| 9. CuCl_2 | = copper (II) chloride | ionic |
| 10. SnS | = tin (II) sulfide | ionic |
| 11. CuCl | = copper (I) chloride | ionic |
| 12. $\text{HCN}_{(\text{aq})}$ | = hydrocyanic acid | non oxyacid |
| 13. AlPO_4 | = aluminum phosphate | ionic |
| 14. N_2O_5 | = dinitrogen pentoxide | covalent |
| 15. H_2O | = dihydrogen monoxide (water) | covalent |

Convert the following chemical names to formulas

| | | |
|--------------------------------|---|------------|
| 1. Sulfur dioxide | = SO_2 | covalent |
| 2. Copper (I) Sulfate | $\text{Cu}^+\text{SO}_4^{2-} = \text{Cu}_2\text{SO}_4$ | ionic |
| 3. Hydroiodic acid | = HI | nonoxyacid |
| 4. Nitric acid | = HNO_3 | oxyacid |
| 5. Bromic acid | = HBrO_3 | oxyacid |
| 6. Sulfur Trioxide | = SO_3 | covalent |
| 7. Aluminum hydroxide | $\text{Al}^{3+}\text{OH}^{-1} = \text{Al}(\text{OH})_3$ | ionic |
| 8. Iodous acid | = HIO_2 | oxyacid |
| 9. Iodic acid | = HIO_3 | oxyacid |
| 10. Iron (III) sulfide | $\text{Fe}^{3+}\text{S}^{2-} = \text{Fe}_2\text{S}_3$ | ionic |
| 11. Hypochlorous acid | = HClO | oxyacid |
| 12. Permanganic acid | = HMnO_4 | oxyacid |
| 13. Calcium phosphide | $\text{Ca}^{2+}\text{P}^{3-} = \text{Ca}_3\text{P}_2$ | ionic |
| 14. Aluminum sulfite | $\text{Al}^{3+}\text{S}^{2-} = \text{Al}_2\text{S}_3$ | ionic |
| 15. tetraphosphorous octaoxide | = P_4O_8 | covalent |