

Science 1206 Chemical Naming - The Big Mamma Review Sheet

ALL Science 1206 chemical naming may be summarized by:

MOLECULAR: *Nonmetals ONLY.*

Name using either: 1) IUPAC prefixes, or
2) Memorize sheet

IONIC: +/- ions, i.e.
 metals + nonmetals OR
 ammonium + nonmetals

Name using: *correct ion names*
(watch out for when
Roman numerals are
required).

ACIDS: *HX (aq) or R-COOH(aq)*

Name using steps: 1. *name as if ionic;*
2. *apply:*
"hydroideic ateiciteous"

HYDRATED

IONIC: *MX · nH₂O*

Name by: 1. *name "MX" part as a you*
would any ionic compound
2. *name "nH₂O" part by using:*
"prefixhydrate"

Now... *apply these ideas!*

1. For the following substances:

- 1) in the first column, class the compound as ionic (i), molecular (m), acid (a) or hydrated ionic (h).
- 2) give the correct IUPAC *name* in the space provided; use traditional names as necessary.

PRINT ALL ANSWERS CLEARLY.

Any unclear numbers or letters will cause a response to be marked incorrect.

| i, m, a or h | Formula | Name |
|--------------|--|------|
| 1 | S ₃ Se ₆ | |
| 2 | Ga ₂ (Cr ₂ O ₇) ₃ | |
| 3 | B ₂ Cl | |
| 4 | Li ₂ OOCCOO | |
| 5 | HClO(aq) | |
| 6 | S ₈ | |
| 7 | K ₂ O | |
| 8 | HNO ₂ (aq) | |
| 9 | Rb ₂ SO ₃ | |
| 10 | Fe ₂ (SO ₄) ₃ | |
| 11 | CaF ₂ ·4H ₂ O | |
| 12 | Cd(MnO ₄) ₂ | |
| 13 | I ₂ | |
| 14 | H ₃ PO ₄ (aq) | |
| 15 | TiO ₂ | |
| 16 | SiO ₂ | |
| 17 | Ni(HSO ₄) ₃ | |
| 18 | NH ₄ CN | |
| 19 | C ₃ H ₈ | |
| 20 | Ag ₂ CrO ₄ · 6H ₂ O | |

Please turn page...

2. For the following substances:

- 1) in the first column, class the compound as ionic (i), molecular (m), acid (a) or hydrated ionic (h).
- 2) give the correct chemical *formula* in the space provided; some formulas correspond to traditional names.

| i, m, a or h | Name | Formula |
|--------------|-------------------------------|---------|
| 1 | chloric acid | |
| 2 | strontium sulfide | |
| 3 | manganese(II) sulfate | |
| 4 | manganese(IV) sulfate | |
| 5 | ethanol | |
| 6 | cadmium thiosulfate dihydrate | |
| 7 | aluminum permanganate | |
| 8 | boric acid | |
| 9 | magnesium benzoate | |
| 10 | cesium nitride | |
| 11 | chromium(III) oxide | |
| 12 | trinitrogen tetrachloride | |
| 13 | ammonia | |
| 14 | ammonium hydroxide | |
| 15 | lithium borate | |
| 16 | bromine | |
| 17 | dinitrogen tetrahydride | |
| 18 | sodium acetate | |
| 19 | calcium cyanide | |
| 20 | silicon dioxide | |
| 21 | hydrogen peroxide | |
| 22 | acetic acid | |
| 23 | sodium nitrite | |
| 24 | sodium nitrate | |
| 25 | calcium nitrite | |
| 26 | calcium nitrate | |
| 27 | zinc hydrogen phosphate | |
| 28 | zinc phosphate | |
| 29 | zinc phosphide | |
| 30 | ozone | |
| 31 | sucrose | |
| 32 | trichlorine dioxide | |
| 33 | carbon disulfide | |
| 34 | aluminum chloride | |
| 35 | gallium hydroxide | |