

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 ateiteous"

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 m | S ₃ Se ₆ | trisulfur hexaselenide |
| 2 I | Ga ₂ (Cr ₂ O ₇) ₃ | gallium dichromate |
| 3 M | B ₂ Cl | diboron monochloride |
| 4 I | Li ₂ OOCCOO | lithium oxalate |
| 5 A | HClO(aq) | hypochlorous acid |
| 6 m | S ₈ | sulfur |
| 7 I | K ₂ O | potassium oxide |
| 8 A | HNO ₂ (aq) | nitrous acid |
| 9 I | Rb ₂ SO ₃ | rubidium sulfite |
| 10 I | Fe ₂ (SO ₄) ₃ | iron (III) sulfate |
| 11 H | CaF ₂ ·4H ₂ O | calcium fluoride tetrahydrate |
| 12 I | Cd(MnO ₄) ₂ | cadmium permanganate |
| 13 m | I ₂ | iodine |
| 14 A | H ₃ PO ₄ (aq) | phosphoric acid |
| 15 I | TiO ₂ | titanium (IV) oxide |
| 16 m | SiO ₂ | silicon dioxide |
| 17 I | Ni(HSO ₄) ₃ | nickel (III) hydrogen sulfate |
| 18 I | NH ₄ CN | ammonium cyanide |
| 19 m | C ₃ H ₈ | propane |
| 20 H | Ag ₂ CrO ₄ ·6H ₂ O | silver chromate hexahydrate |