**Naming Rules Card**

*The following are all the chemical compounds naming rules that we will be using in this class (there are more of course).* If you turn in the note card to get it **laminated** you will be able to use it on **ANY** **quiz or test for the rest of the year!**  Any non-laminated cards will not be able to be used.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Monatomic Cations | | | | | | Molecular Compounds |
| Element | | **Formula** | **Element** | | **Formula** | 1= mono |
| aluminum | | Al3+ | lead(II)/plumbous | | Pb2+ | 2 = di |
| barium | | Ba2+ | lead(IV)/plumbic | | Pb4+ | 3 = tri |
| cadmium | | Cd2+ | maganese(II)/manganous | | Mn2+ | 4 = tetra |
| calcium | | Ca2+ | maganese(III)/manganic | | Mn3+ | 5 = penta |
| cesium | | Cs+ | magnesium | | Mg2+ | 6 = hexa |
| chromium(II)/chromous | | Cr2+ | mercury(I)/mercurous | | Hg22+ | 7 = hepta |
| chromium(III)/chromic | | Cr3+ | mercury(II)/mercuric | | Hg2+ | 8 = octo |
| cobalt(II)/cobaltous | | Co2+ | nickel (II)/nickelous | | Ni2+ | 9 = nano |
| cobalt(III)/cobaltic | | Co3+ | nickel (III)/ nickelic | | Ni3+ | 10 = deca |
| copper(I)/cuprous | | Cu+ | potassium | | K+ | **\*\*Drop Double Vowels** |
| copper(II)/cupric | | Cu2+ | rubidium | | Rb+ |  |
| gold | | Au+ | silver | | Ag+ |  |
| hydrogen | | H­+ | sodium | | Na+ |  |
| iron(II)/ferrous | | Fe2+ | strontium | | Sr2+ |  |
| iron(III)/ferric | | Fe3+ | tin(II)/stannous | | Sn2+ |  |
| lithium | | Li+ | tin(IV)/stannic | | Sn4+ |  |
|  |  | | zinc | Zn2+ | |  |
| Polyatomic Cations | | | | | |  |
| ammonium | | NH4+ |  | |  |  |
| hydronium | | H3O+ |  | |  |  |

|  |  |  |  |  |  |
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| **Monatomic Anions** | | **Polyatomic Anions** | | | |
| **Element** | **Formula** | **Name** | **Formula** | **Name** | **Formula** |
| hydride\* | H- | arsenate | AsO43- | hypochlorite | ClO- |
| fluoride\* | F- | borate | BO33- | iodate | IO3- |
| chloride\* | Cl- | bromate | BrO3- | nitrate | NO3- |
| bromide\* | Br- | carbonate | CO­32- | nitrite | NO2- |
| iodide\* | I- | chlorate | ClO3- | oxalate (ethanedioate) | C2O42- |
| oxide\* | O2- | chlorite | ClO2- | perchlorate | ClO4- |
| sulfide | S2- | chromate | CrO42- | permanganate | MnO4- |
| nitride\* | N3- | cyanide | CN- | peroxide | O22- |
| \*Exists as diatomic molecules | | dichromate | Cr2O72- | phosphate | PO43- |
| **Naming Acids** | | dihydrogen phosphate | H2PO4- | phosphite | PO33- |
| **Monatomic Anion** | | ethanoate (acetate) | CH3CO2-or C2H3O2- | silicate | SiO32- |
| \*Name starts with hydro- | | hydrogen carbonate (bicarbonate) | HCO3- | sulfate | SO42- |
| Ion has –ic at the end and add “acid” | | hydrogen phosphate (biphosphate) | HPO42- | sulfite | SO32- |
| **Polyatomic Anion** | | hydrogen sulfate (bisulfate) | HSO4- | tetraborate | B4O72- |
| \*No hydro in name | | hydroxide | OH- | thiocyanate | SCN- |
| If ion ends in –ite change it to –ous and add “acid” | |  |  | thiosulfate | S2O32- |
| If ion ends in –ate change it to –ic and add acid | |  |  |  |  |
| Remember: “I –ate something –icky” | | \*\*Hydrate (combine w prefix) | H2O |  |  |

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|  |  | | zinc | Zn2+ | |  |
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|  |  |  |  |  |  |
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| bromide\* | Br- | carbonate | CO­32- | nitrite | NO2- |
| iodide\* | I- | chlorate | ClO3- | oxalate (ethanedioate) | C2O42- |
| oxide\* | O2- | chlorite | ClO2- | perchlorate | ClO4- |
| sulfide | S2- | chromate | CrO42- | permanganate | MnO4- |
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