## Writing names for ionic compounds

Naming binary ionic compounds

When naming an ionic compound, you just write the names of the ions as they the formula. For simple binary ionic compounds (ionic formulas from two sin ions), like NaCl, the first part of the name is just the name of the element, and the part of the name is a modified version of the name of the element. Typically, you standard ending and add -ide.

use name of element change fluorine to flouride use name of element chloride chloride

Names for polyatomic ions are found on the common ion table For polyatomic ions you will need to get the name from the table below. Otherwood the same way as it is for binary ionic compounds. Write the name of the ic order that they appear in the formula.

use name of element

MgCO<sub>3</sub>

get name of polyatomic ion from table

get name of polyatomic ion from table

(NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>

get name of polyatomic ion from table

magnesium carbonate

ammonium sulfate

## **TABLE 8.1. Common lons**

positive ions		negative ions	
Aluminum Al <sup>3+</sup>	Lead(II) Pb <sup>2+</sup>	Acetate C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> <sup>1-</sup>	Hydrogen sulfate
Ammonium NH <sub>4</sub> <sup>1+</sup>	Lead(IV) Pb <sup>4+</sup>	Chloride Cl <sup>1-</sup>	(bisulfate) HSO <sub>4</sub>
Barium Ba <sup>2+</sup>	Magnesium Mg <sup>2+</sup>	Carbonate CO <sub>3</sub> <sup>2</sup> -	Hydroxide OH1-
Copper(I) Cu <sup>1+</sup>	Mercury(I) Hg <sub>2</sub> <sup>1+</sup>	Chromate CrO <sub>4</sub> <sup>2</sup> -	Nitrate NO <sub>3</sub> <sup>1</sup> -
Copper(II) Cu <sup>2+</sup>	Mercury(II) Hg <sup>2+</sup>	Chlorate ClO <sub>3</sub> <sup>1-</sup>	Nitrite NO <sub>2</sub> <sup>1</sup> -
Calcium Ca <sup>2+</sup>	Potassium K <sup>1+</sup>	Chlorite ClO <sub>2</sub> <sup>1</sup> -	Oxide O <sup>2</sup> -
Chromium(II) Cr <sup>2+</sup>	Silver Ag <sup>1+</sup>	Cyanide CN <sup>1</sup> -	Peroxide O <sub>2</sub> <sup>2</sup> -
Chromium(III) Cr <sup>3+</sup>	Sodium Na <sup>1+</sup>	Dichromate Cr <sub>2</sub> O <sub>7</sub> <sup>2</sup> -	Phosphate PO <sub>4</sub> <sup>3</sup> -
Hydrogen* H <sup>1+</sup>	Tin(II) Sn <sup>2+</sup>	Fluoride F <sup>1</sup> -	Sulfate $SO_4^{2-}$
Iron(II) Fe <sup>2+</sup>	Tin(IV) Sn <sup>4+</sup>	Hydrogen carbonate	Sulfite SO <sub>3</sub> <sup>2</sup> -
Iron(III) Fe <sup>3+</sup>	Zinc Zn <sup>2+</sup>	(bicarbonate) HCO <sub>3</sub> <sup>1-</sup>	Sulfide S <sub>2</sub> .

Hydrogen ions rarely exist by themselves. Often they combine with water to form hydronium ions: H<sub>3</sub>O<sup>1+</sup>.