

Polyatomic atoms

Ammonium	NH ₄	1+
Acetate	C ₂ H ₃ O ₂	1-
Chorate	ClO ₃	1-
Hydroxide	OH	1-
Nitrate	NO ₃	1-
Carbonate	CO ₃	2-
Sulfate	SO ₄	2-
Phosphate	PO ₄	3-

Rules for Using Oxidation Numbers

- The sum of the oxidation numbers in a compound is always equal to 0
- Some elements have more than one ox number
- Write the symbol of the element with the positive ox number first

Elements with more than 1 ox number

Iron	Fe	2+,3+
Copper	Cu	1+,2+
Chromium	Cr	2+,3+
Tin	Sn	2+,4+
Lead	Pb	2+,4+
Silver	Ag	1+

'Ide' forms

Oxygen	Oxide
Nitrogen	Nitride
Sulfur	Sulfide
Bromine	Bromide
Iodine	Iodide
Chlorine	Chloride
Fluorine	Fluoride
Phosphorous	Phosphide

Diatomic elemets

Nitrogen	N ₂
Oxygen	O ₂
Fluorine	F ₂
Chlorine	Cl ₂
Bromine	Br ₂
Iodine	I ₂
Hydrgen	H ₂

Vocab

Compounds	2 or more elements chemically combined
Molecule	the smallest particle of a compound (or gaseous element) that still has the chemical properties of that substance
Octet rule	tendency for elements to be stable with 8 valence electrons
Exceptions to octet rule	Hydrogen (H), Helium (He), Lithium (Li), Beryllium (Be)
Ionic bond	transfer of electrons results in electromagnetic force
Covalent bond	atoms share electrons to become stable
Ionic bond elements	Metals(+) and Nonmetals (-)
Covalent bond elements	Nonmetals and Nonmetals and Hydrogen
Metallic bond	valence electrons are lost to a common electron cloud
Metallic bond elements	Metals and metals

Vocab (cont)

Oxidation number	combining ability of an atom - the number of electrons gained, lost, or shared
Ionic ox number	charge on ion
Covalent ox number	experimentally determined
Polyatomic ion	Group of covalently bonded atoms that act together like one charged particle

