

Diatomic Compounds : From Names to Formulas

Name	Ions (write NA if a covalent compound)		Formula
	Cation	Anion	
Zinc Sulfide	Zn ²⁺	S ²⁻	ZnS
Aluminum Nitride	Al ³⁺	N ³⁻	AlN
Iron (III) Iodide	Fe ³⁺	I ⁻	FeI ₃
Cesium Bromide	Cs ⁺	Br ⁻	CsBr
Iron(III) Sulfide	Fe ³⁺	S ²⁻	Fe ₂ S ₃
Dihydrogen monoxide	NA		H ₂ O
Potassium Chloride	K ⁺	Cl ⁻	KCl
Calcium Oxide	Ca ²⁺	O ²⁻	CaO
Mercury (II) Iodide	Hg ²⁺	I ⁻	HgI ₂
Diphosphorus Pentoxide	NA		P ₂ O ₅
Phosphorus Pentachloride	NA		PCl ₅
Dinitrogen Tetroxide	NA		N ₂ O ₄
Lead (IV) Sulfide	Pb ⁴⁺	S ²⁻	PbS ₂
Diiodine Pentoxide	NA		I ₂ O ₅
Vanadium (V) Phosphide	V ⁵⁺	P ³⁻	V ₃ P ₅
Silicon Dioxide	NA		SiO ₂
Lead (IV) Nitride	Pb ⁴⁺	N ³⁻	Pb ₃ N ₄
Triselenium Tetranitride	NA		Se ₃ N ₄
Vanadium (III) Nitride	V ³⁺	N ³⁻	VN
Rhenium (III) Arsenide	Re ³⁺	As ³⁻	ReAs
Mercury(II) Nitride	Hg ²⁺	N ³⁻	Hg ₃ N ₂
Palladium (IV) Fluoride	Pd ⁴⁺	F ⁻	PdF ₄
Diphosphorus Pentasulfide	NA		P ₂ S ₅

Compounds : From Formulas to Names			
Formula	(write NA if a covalent compound)		Name
	Cation	Anion	
NCl ₃	NA		Nitrogen Trichloride
GaF ₃	Ga ³⁺	F ⁻	Gallium Fluoride
BrF ₅	NA		Bromine Pentafluoride
N ₂ O ₃	NA		Dinitrogen Trioxide
FeP	Fe ³⁺	P ³⁻	Iron (III) Phosphide
Pb ₃ N ₄	Pb ⁴⁺	N ³⁻	Lead (IV) Nitride
SeO ₂	NA		Selenium Dioxide
CuS	Cu ²⁺	S ²⁻	Copper (II) Sulfide
Fe ₂ O ₃	Fe ³⁺	O ²⁻	Iron (III) Oxide
MgS	Mg ²⁺	S ²⁻	Magnesium Sulfide
MnO ₂	Mn ⁴⁺	O ²⁻	Manganese (IV) Oxide
NO ₂	NA		Nitrogen Dioxide
ZnI ₂	Zn ²⁺	I ⁻	Zinc Iodide
Hg ₂ I ₂	Hg ₂ ²⁺	I ⁻	Mercury (I) Iodide
PbO	Pb ²⁺	O ²⁻	Lead (II) Oxide
HgO	Hg ²⁺	O ²⁻	Mercury (II) Oxide
Ni ₂ O ₃	Ni ³⁺	O ²⁻	Nickel (III) Oxide
CuO	Cu ²⁺	O ²⁻	Copper (II) Oxide
FeBr ₃	Fe ³⁺	Br ⁻	Iron (III) Bromide
Cu ₂ O	Cu ⁺	O ²⁻	Copper (I) Oxide
Mo ₃ P ₂	Mo ²⁺	P ³⁻	Molybdenum (II) Phosphide
KBr	K ⁺	Br ⁻	Potassium Bromide
NaBr	Na ⁺	Br ⁻	Sodium Bromide

Polyatomic Compounds: From Names to Formulas			
Name	Ions		Formula
	Cation	Anion	
Zinc Sulfate	Zn ²⁺	SO ₄ ²⁻	ZnSO ₄
Aluminum Nitrate	Al ³⁺	NO ₃ ⁻	Al(NO ₃) ₃
Iron (III) Carbonate	Fe ³⁺	CO ₃ ²⁻	Fe ₂ (CO ₃) ₃
Cesium Acetate	Cs ⁺	CH ₃ COO ⁻	CsCH ₃ COO or CsCH ₃ CO ₂
Tin(IV) Dichromate	Sn ⁴⁺	Cr ₂ O ₇ ²⁻	Sn(Cr ₂ O ₇) ₂
Iron(II) Sulfite	Fe ²⁺	SO ₃ ²⁻	FeSO ₃
Aluminum Hydrogen sulfate	Al ³⁺	HSO ₄ ⁻	Al(HSO ₄) ₃
Potassium Nitrite	K ⁺	NO ₂ ⁻	KNO ₂
Lead (IV) Hydroxide	Pb ⁴⁺	OH ⁻	Pb(OH) ₄
Copper(II) Hypochlorite	Cu ²⁺	ClO ⁻	Cu(ClO) ₂
Mercury(II) Permanganate	Hg ²⁺	MnO ₄ ⁻	Hg(MnO ₄) ₂
Magnesium Hydroxide	Mg ²⁺	OH ⁻	Mg(OH) ₂
Sodium Cyanide	Na ⁺	CN ⁻	NaCN
Potassium Dichromate	K ⁺	Cr ₂ O ₇ ²⁻	K ₂ Cr ₂ O ₇
Ammonium Phosphate	NH ₄ ⁺	PO ₄ ³⁻	(NH ₄) ₃ PO ₄
Sodium Sulfate	Na ⁺	SO ₄ ²⁻	Na ₂ SO ₄
Copper(I) Carbonate	Cu ⁺	CO ₃ ²⁻	Cu ₂ CO ₃
Iron(III) Acetate	Fe ³⁺	CH ₃ COO ⁻	Fe(CH ₃ COO) ₃
Lithium Dihydrogen Phosphate	Li ⁺	H ₂ PO ₄ ⁻	LiH ₂ PO ₄
Iron (II) Nitrite	Fe ²⁺	NO ₂ ⁻	Fe(NO ₂) ₂
Chromium (VI) Sulfite	Cr ⁶⁺	SO ₃ ²⁻	Cr(SO ₃) ₃
Potassium Chromate	K ⁺	CrO ₄ ²⁻	K ₂ CrO ₄
Manganese (II) Phosphate	Mn ²⁺	PO ₄ ³⁻	Mn ₃ (PO ₄) ₂
Gold (III) Acetate	Au ³⁺	CH ₃ COO ⁻	Au(CH ₃ COO) ₃
Copper (I) Dichromate	Cu ⁺	Cr ₂ O ₇ ²⁻	Cu ₂ Cr ₂ O ₇

Polyatomic Compounds : From Formulas to Names			
Formula	Ions		Name
	Cation	Anion	
NaOH	Na ⁺	OH ⁻	Sodium Hydroxide
K ₂ O	K ⁺	O ²⁻	Potassium Oxide
Cu(CN) ₂	Cu ²⁺	CN ⁻	Copper (II) Cyanide
NaNO ₂	Na ⁺	NO ₂ ⁻	Sodium Nitrite
H ₃ PO ₄	NA		Phosphoric Acid
Pb ₃ (PO ₄) ₄	Pb ⁴⁺	PO ₄ ³⁻	Lead (IV) Phosphate
NaHSO ₃	Na ⁺	HSO ₃ ⁻	Sodium Hydrogen Sulfite
(Cu) ₃ PO ₄	Cu ⁺	PO ₄ ³⁻	Copper (I) Phosphate
Ag ₂ CO ₃	Ag ⁺	CO ₃ ²⁻	Silver Carbonate
HNO ₃	NA		Nitric Acid
Pb(CN) ₄	Pb ⁴⁺	CN ⁻	Lead (IV) Cyanide
(NH ₄) ₂ CO ₃	NH ₄ ⁺	CO ₃ ²⁻	Ammonium Carbonate
Pb ₃ (PO ₄) ₄	Pb ⁴⁺	PO ₄ ³⁻	Lead (IV) Phosphate
Fe ₂ (Cr ₂ O ₇) ₃	Fe ³⁺	Cr ₂ O ₇ ²⁻	Iron (III) Dichromate
Co(CH ₃ COO) ₂	Co ²⁺	CH ₃ COO ⁻	Cobalt (II) Acetate
Sn(SO ₃) ₂	Sn ⁴⁺	SO ₃ ²⁻	Tin (IV) Sulfite
H ₂ SO ₄	NA		Sulfuric Acid
Pb(OH) ₄	Pb ⁴⁺	OH ⁻	Lead (IV) Hydroxide
Mg(CH ₃ COO) ₂	Mg ²⁺	CH ₃ COO ⁻	Magnesium Acetate
NaHSO ₄	Na ⁺	HSO ₄ ⁻	Sodium Hydrogen Sulfate
Cu(NO ₃) ₂	Cu ²⁺	NO ₃ ⁻	Copper (II) Nitrate
Ba(ClO) ₂	Ba ²⁺	ClO ⁻	Barium Hypochlorite
NH ₄ H ₂ PO ₄	NH ₄ ⁺	H ₂ PO ₄ ⁻	Ammonium Dihydrogen Phosphate

Formula	Name
HBr	Hydrobromic acid
CH ₃ COOH	Acetic Acid
HI	Hydroiodic Acid
HClO ₄	Perchloric Acid
H ₃ PO ₄	Phosphoric Acid
H ₂ SO ₃	Sulfurous Acid
HBrO	Hypobromous Acid
HNO ₂	Nitrous Acid
H ₂ S	Hydrosulfuric Acid
H ₂ SO ₄	Sulfuric Acid
HNO ₃	Nitric Acid

Name	Formula
Hydrochloric Acid	HCl
Chloric Acid	HClO ₃
Nitric Acid	HNO ₃
Phosphoric Acid	H ₃ PO ₄
Hypochlorous Acid	HClO
Hydrofluoric Acid	HF
Acetic Acid	CH ₃ COOH
Sulfuric Acid	H ₂ SO ₄
Sulfurous Acid	H ₂ SO ₃
Perbromic Acid	HBrO ₄