

Worksheet – Formulas and Names for Ionic Compounds

Write the chemical formula and name for the following ionic compounds:

Metal	Non-Metal	Metal with charge	Non-Metal with charge	Cross over, Reduce, remove ones	Chemical Formula	Name of Compound
Na	Br					
Mg	O					
Al	I					
K	S					
Ag	Cl					
Fe	O					
Al	S					
K	O					

Writing Formulas and Naming Compounds Practice Sheet

Ionic Compounds

Chemical Name	Chemical Formula
magnesium sulfide	
rubidium selenide	
sodium sulfide	
calcium fluoride	
strontium oxide	
aluminum chloride	
barium bromide	
lithium iodide	

Chemical Formula	Chemical Name
Ba ₃ P ₂	
Al ₂ S ₃	
KCl	
NaF	
MgF ₂	
MgO	
SrCl ₂	
Li ₂ O	

Classic System for Ionic Compounds

Chemical Name	Chemical Formula
auric chloride	
cuprous bromide	
antimonic carbide	
arsenic phosphide	
mercurous bromide	
mercuric bromide	
cuprous oxide	
mercuric oxide	

Chemical Name	Chemical Formula
cobaltous oxide	
ferrous sulfide	
cupric oxide	
stannous oxide	
arsenous oxide	
ferrous nitride	
stannic oxide	
arsenic oxide	

Stock System for Ionic Compounds

Chemical Name	Chemical Formula
lead (II) sulfide	
iron (III) oxide	
nickel (II) chloride	
copper (I) oxide	
gold (III) sulfide	
chromium (II) phosphide	
cobalt (II) iodide	
tin (IV) bromide	
manganese (IV) oxide	
mercury (II) chloride	
lead (II) iodide	
** zinc phosphide	
** silver nitride	

Chemical Formula	Chemical Name
FeCl ₂	
SnO ₂	
CuBr	
FeCl ₃	
CrCl ₃	
CuCl ₂	
CuO	
CdS	
Sb ₂ S ₅	
As ₂ O ₃	
Hg ₂ O	
Pb ₃ N ₄	
Zn ₅ P ₂	

Polyatomic Ions

Chemical Name	Chemical Formula
sodium iodate	
potassium sulfate	
magnesium nitrate	
calcium bromate	
lithium phosphate	
ammonium sulfate	
ammonium thiosulfate	
ammonium nitrate	

Chemical Formula	Chemical Name
Ba(OH) ₂	
Mg(ClO ₃) ₂	
KNO ₃	
KMnO ₄	
NaC ₂ H ₃ O ₂	
Al(CN) ₃	
Ca ₃ (PO ₄) ₂	
H ₂ O ₂	

Polyatomic Ions – where metal has different oxidation numbers

Chemical Name	Chemical Formula
copper (II) sulfate	
iron (II) chlorate	
cobalt (II) carbonate	
gold (III) acetate	
iron (III) phosphate	
antimony (III) thiosulfate	
tin (II) hydroxide	
copper (II) phosphate	
copper (I) nitrate	
nickel (II) carbonate	
iron (III) bromide	
copper (I) acetate	
mercury (I) hydroxide	
antimony (V) acetate	
iron (III) cyanide	
iron (III) chlorate	
lead (IV) carbonate	
manganese (II) oxalate	
manganese (III) phosphate	
mercury (I) nitrate	
tin (II) bromate	
antimony (V) phosphate	
nickel (II) thiocyanate	
lead (IV) hydroxide	
gold (I) sulfate	

Chemical Formula	Chemical Name
CuSO ₄	
Cu ₂ SO ₄	
Pb(NO ₃) ₂	
Pb(NO ₃) ₄	
Fe(ClO ₃) ₂	
HgSO ₄	
Sn(CO ₃) ₂	
Pb(SO ₄) ₂	
Pb(OH) ₂	
ZnSO ₄	
Hg ₂ O ₂	
Cu ₃ (PO ₄) ₂	
AgNO ₃	
NiC ₂	
Sn(NO ₃) ₂	
FePO ₄	
Au ₂ (CO ₃) ₃	
PbS ₂ O ₃	
CrC ₂ O ₄	
Ni(IO ₃) ₂	
Co(BrO ₃) ₃	
FeCO ₃	
MnPO ₄	
SbPO ₄	
MoSO ₄	