

Metal + Acid reactions

Part 1: Reactions with common acids

Complete the following word equations by selecting the right answers from the drop-down lists.

- a) + hydrochloric acid → zinc chloride + hydrogen
- b) iron + → iron chloride + hydrogen
- c) iron + sulfuric acid → + hydrogen
- d) lead + sulfuric acid → +
- e) + → magnesium chloride + hydrogen
- f) zinc + nitric acid → + hydrogen
- g) + sulfuric acid → barium sulfate +
- h) calcium + → calcium chloride +
- i) + acid → copper nitrate +
- j) + acid → nickel sulfate +

Part 2: Reactions with uncommon acids

These are harder questions but you should be able to apply the rules you have learned to other acids.

Remember that most acids contain oxygen but halogen acids (which have “hydro” at the start of their names before a shortened form of the halogen name) contain no oxygen.

Metal reactant	Acid reactant	Name of salt product
	phosphoric acid	magnesium phosphate
calcium		calcium phosphate
zinc	phosphoric acid	
tin		tin chloride
iron	hydrobromic acid	
	citric acid	zinc citrate
magnesium	citric acid	
magnesium		magnesium ethanoate
magnesium		magnesium fluoride
lithium		lithium methanoate