

## SOLUBILITY TABLE

Anions Cations	acetate ion	bromide ion	carbonate ion	chloride ion	fluoride ion	hydroxide ion	iodide ion	nitrate ion	oxide ion	phosphate ion	sulfate ion	sulfite ion	sulfide ion	thiocyanate ion
Aluminum ion	aq	aq	d	aq	aq	l	aq	aq	l	l	aq	—	d	aq
Ammonium ion	aq	aq	d	aq	aq	d	aq	aq	—	aq	aq	aq	aq	aq
Barium ion	aq	aq	l	aq	l	ss	aq	aq	d	l	l	l	d	aq
Cadmium(II) ion	aq	aq	l	aq	ss	l	aq	aq	l	l	aq	l	l	ss
Calcium ion	aq	aq	l	aq	l	ss	aq	aq	l	l	ss	l	d	aq
Cobalt(II) ion	aq	aq	l	aq	aq	l	aq	aq	l	l	aq	l	l	aq
Copper(II) ion	aq	aq	l	aq	ss	l	d	aq	l	l	aq	—	l	l
Iron(II) ion	aq	aq	l	aq	ss	l	aq	aq	l	l	aq	ss	l	aq
Iron(III) ion	l	aq	—	aq	ss	l	—	aq	l	l	ss	—	l	aq
Lead(II) ion	aq	ss	l	l	l	l	l	aq	l	l	l	l	l	l
Magnesium ion	aq	aq	l	aq	l	l	aq	aq	l	l	aq	ss	d	aq
Manganese(II) ion	aq	aq	l	aq	l	l	aq	aq	l	ss	aq	l	l	aq
Mercury(II) ion	aq	l	l	ss	d	l	l	aq	l	l	d	—	l	aq
Nickel(II) ion	aq	aq	l	aq	l	l	aq	aq	l	l	aq	l	l	aq
Potassium ion	aq	aq	aq	aq	aq	aq	aq	aq	d	aq	aq	aq	aq	aq
Silver(I) ion	ss	l	l	l	aq	d	l	aq	l	l	ss	l	l	l
Sodium ion	aq	aq	aq	aq	aq	aq	aq	aq	d	aq	aq	aq	aq	aq
Tin(II) ion	d	aq	l	aq	aq	l	ss	d	l	l	aq	—	l	ss
Zinc(II) ion	aq	aq	l	aq	ss	l	aq	aq	l	l	aq	l	l	aq

**aq:** aqueous - forms ionic solutions in H<sub>2</sub>O

**ss:** slightly soluble in H<sub>2</sub>O

**l:** insoluble in H<sub>2</sub>O

**d:** decomposes in H<sub>2</sub>O to form different species

**—:** non-existent

- Would mixing sodium ions and chloride ions cause a precipitate? The chart shows "aq" meaning no, they would remain in aqueous solution and not form a precipitate.

- Would mixing silver ions and chloride ions cause a precipitate? The chart shows "l" meaning yes, they would form a precipitate.

- Would mixing calcium ions and sulfate ions cause a precipitate? The chart shows "ss" meaning that a precipitate may or may not form, depending on the amounts involved.