



# Clicker Question

When lead(II) nitrate and potassium iodide are mixed, what precipitate will form?

- A)  $\text{KNO}_3$
- B)  $\text{PbI}$
- C)  $\text{K}(\text{NO}_3)_2$
- D)  $\text{PbI}_2$
- E)  No precipitate

will form.

## Solubility Rules

1. Most nitrate salts are soluble.
2. Most salts of sodium, potassium, and ammonium cations are soluble.
3. Most chloride and iodide salts are soluble. Exceptions:  $\text{Ag}^+$  and  $\text{Pb}^{2+}$ .
4. Most sulfate salts are soluble. Exceptions:  $\text{Ca}^{2+}$ ,  $\text{Ba}^{2+}$ , and  $\text{Pb}^{2+}$ .
5. Most hydroxide salts are only slightly soluble. Soluble ones are:  $\text{Na}^+$ ,  $\text{K}^+$ , and  $\text{Ca}^{2+}$ .
6. Most sulfide, carbonate, and phosphate salts are only slightly soluble.