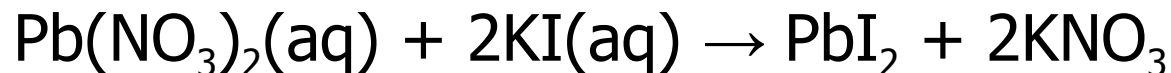




# Solubility Rules

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Given:



$\text{PbI}_2$  must be the solid.

## Solubility Rules

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