



So, products of reaction  $2\text{NaOH} + \text{CO}_2 \rightarrow \text{Na}_2\text{CO}_3 + \text{H}_2\text{O}$  is mixture or solution of  $\text{Na}_2\text{CO}_3 + \text{H}_2\text{O}$ , so it is not pure substance.

Products of reaction  $\text{NaOH} + \text{HCl} \rightarrow \text{NaCl} + \text{H}_2\text{O}$  is mixture or solution of  $\text{NaCl} + \text{H}_2\text{O}$ , so it is not pure substance.

Products of reaction  $2\text{KI} + \text{Pb}(\text{NO}_3)_2 \rightarrow 2\text{KNO}_3 + \text{PbI}_2$  is not mixture of  $\text{KNO}_3$  and  $\text{PbI}_2$ , because  $\text{PbI}_2$  is precipitate and it is pure substance.

Products of reaction  $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$  is not mixture, because  $\text{CaO}$  is solid and  $\text{CO}_2$  gas, so there are two pure substances as products.