

Changes in Matter

Def: A substance changing its form.

There are 4 types of changes: chemical, physical, neutralization and combustion.

Review

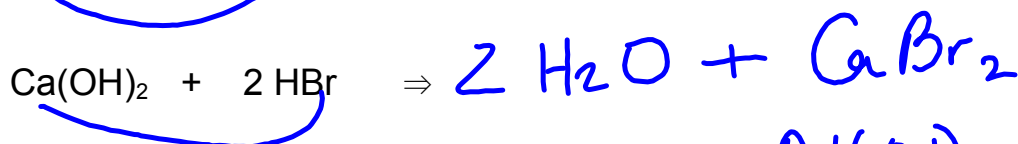
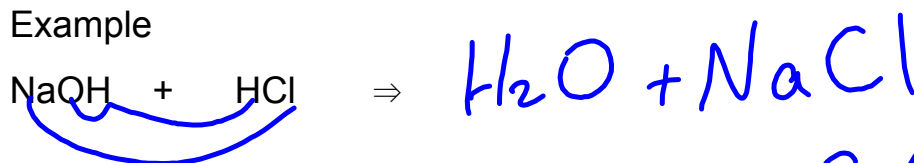
Chemical changes signs	Physical changes signs
<ul style="list-style-type: none">• colour change• heat or light given off• precipitate formed• bubbling• mass change	<ul style="list-style-type: none">• condensation• fusion• sublimation• evaporation• solidification

Neutralization

Def: Occurs when acids and bases are added to each other in the right proportions.

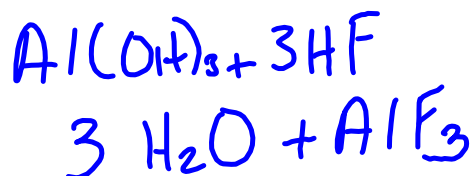
Once neutralization has occurred, acids and bases are no longer present. Instead you have created two new substances.

Example



Molecules always produced are?

Salt + water



Neutralization reaction.avi

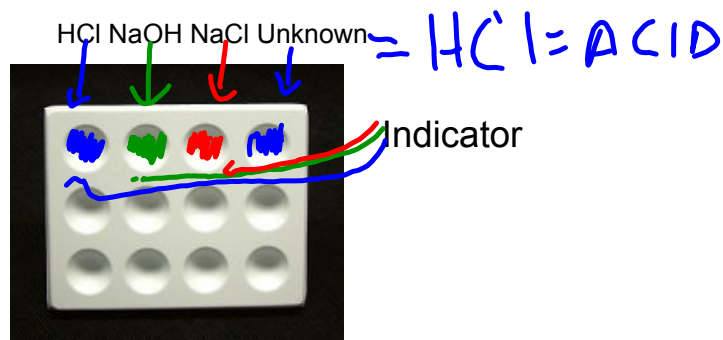


How do antacids work_.avi



Neutralizations labs using indicators

A- How to determine whether an unknown is an acid, base or neutral solution?



B- How to neutralize unknown once its type is determined?

Drop and swirl technique

- 1- Put # of drops of unknown (HCl)
- 2- Put 2 drops of indicator: colour (blue)
- 3- Perform drop & swirl technique.
- 4- Stop drop & swirl when solution has a permanent colour change to the NaCl colour

Attachments



How do antacids work_.avi



Neutralization reaction.avi