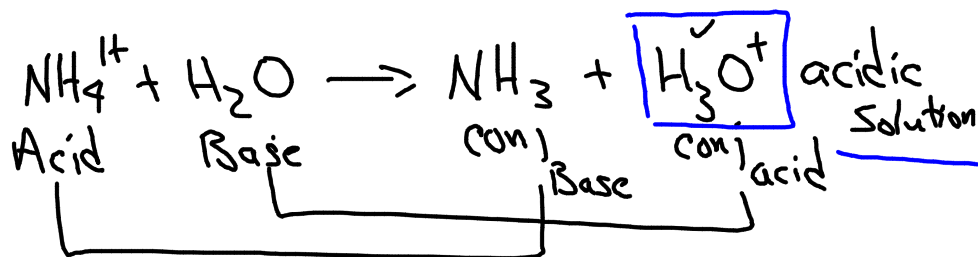
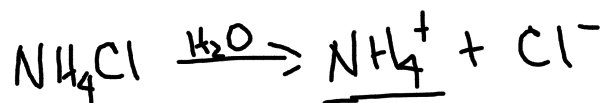


Ch 21 HW: Sec Rev 48-51,60,77  
 Sec 21.2

obj: Show how buffers resist changes in pH.

### Salt Hydrolysis

- When a weak acid reacts w/ a Strong base or a Strong acid reacts w/ a weak base the salt that is produced is called a hydrolyzing Salt.
- One of the Ions of the dissociated hydrolyzed Salt is a Bronsted - Lowery Acid or Base.



- Hydrolyzed Salts produce basic or acidic solutions

Strong Acid + Strong Base  $\Rightarrow$  Neutral Solution

Strong Acid + Weak Base  $\Rightarrow$  Acidic Solution

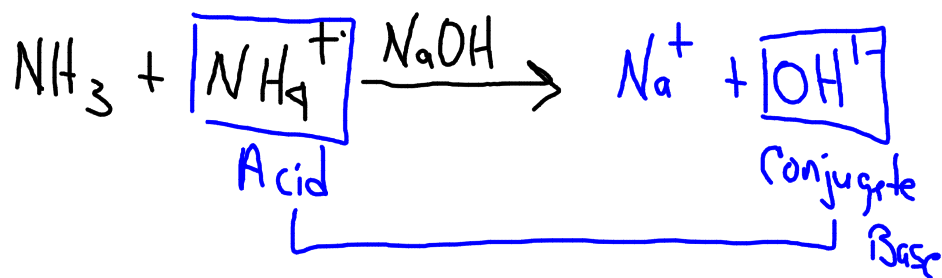
Weak Acid + Strong Base  $\Rightarrow$  Basic Solution

### Buffers

- Solutions that resist a drastic change in their pH.
- Solutions contain a weak acid w/ its salt or a weak base w/ its salt.

\* its salt is a hydrolyzed salt.

$\text{NH}_3$  w/  $\text{NH}_4\text{Cl}$  Buffer  
Weak Base      Hydrolyzed Salt.



- Buffer Capacity - The Buffer Solution has a Limit to the amount of the acid or base it can absorb.

\* Buffers can only absorb a small amount of acids or bases

- Hydrolyzed Salts

