



## The Process of Electrolysis

### Reaction that takes place in a @ inline Salt Cell

1. Sodium Chloride (Salt) added to pool water.
2. Anode of cell makes Hypochlorous Acid and Hydrochloric Acid.
3. Cathode of Cell makes Sodium Hydroxide and Hydrogen Gas.  
(The Hydrogen gas bubbles through the Pool water into the atmosphere).
4. Hypochlorous Acid from the Anode combines with the Sodium Hydroxide from the Cathode to make Sodium Hypochlorite or Liquid Chlorine when mixed with the Pool water going through the Cell.
5. Hydrochloric Acid from the Anode combines with the Sodium Hydroxide from the Cathode to make Sodium Chloride (Salt) which is re-used by the Cell.
6. Liquid Chlorine at a pH of 7.4 goes half to Hypochlorous Acid and half to Sodium Hydroxide.
7. Hypochlorous Acid combines with soil, bacteria, algae, organics and UV's to convert to Hydrochloric Acid-
8. Hydrochloric Acid combines with Sodium Hydroxide forming Sodium Chloride (Salt) again, which is re-used by the Cell.

This is called a Closed Loop System because the salt is used over and over again and is only lost through splash out, backwashing, and rainfall.