

## pH Scale

pH scale is used as a convenient method for describing the relative amount of acid or base in any aqueous solution (water solution)

pH		strength of $H^{1+}$ or $OH^{1-}$	example substance
14	<b>BASIC <math>OH^{1-}</math></b>	10000000	
13		1000000	sodium hydroxide
12		100000	ammonia
11		10000	
10		1000	anti-acid tablet
9		100	
8		10	
7	<b>NEUTRAL</b>	1	pure water
6	<b>ACIDIC <math>H^{1+}</math></b>	10	milk
5		100	5.6 rain water
4		1000	
3		10000	vinegar
2		100000	lemon juice
1		1000000	battery acid

Acidic ranges from 1 to 6 (up to 6.999...)

Basic ranges from 8 to 14 (up from 7.001...)

A change of one number on the pH scale is in fact a 10 times change in acid or base strength.

Common Acidic Substances are:

- apple juice
- lemon juice
- lemonade
- vinegar
- battery acid

Common Basic Substances are:

- baking soda
- windex
- ammonia cleaner
- Drano
- lye (sodium hydroxide)
- T.S.P. (tri sodium phosphate)

**Indicator:** a chemical substance that has different colours at different pHs. Can be used to determine pH