NORMALITY (N)

The concentration of equivalents or gram equivalents of solute dissolved in one liter of the solution is referred to as the normality (N) of the solution.

$$\text{Normality(N)} = \frac{\text{Number of gramequivalentsof solute}}{\text{volumeof solution in litre}}$$

$$= \frac{\text{weight of solute in gram}}{\text{equivalent weight} \times \text{volume of solution (litre)}}$$

$$= \frac{\text{strength of solution in gram / litre}}{\text{Equivalent weight of solute}}$$

Equivalent weight of a substance is that weight which reacts with or displaces one gram of hydrogen, 8 grams of oxygen or 35.5 grams of chlorine.

Solutions are expressed as: 1N, $\frac{N}{2}$, $\frac{N}{10}$, $\frac{N}{100}$, $\frac{N}{1000}$, etc.

1N = Normal
= One gram equivalent of the solute per liter of solution
= Normality is 1

$\frac{N}{2}$ = Seminormal
= 0.5 g equivalent of the solute per liter of solution
= Normality is 0.5

$\frac{N}{10}$ = Decinormal
= 0.1g equivalent of the solute per liter of solution
= Normality is 0.1

$\frac{N}{1000}$ = Cent normal = 0.01g equivalent of the solute per liter of solution
= Normality is 0.01 N 1000

= Millinormal = 0.001g equivalent of the solute per liter of solution
= Normality is 0.001