Acidimetry and Alkalimetry

Equivalent weight of a salt

- The equivalent weight of a salt is the weight of the salt which contains one equivalent mass of a metal or compound radical acting like a metal.
-

Formula of salt	Number of metal atom x valency of the metal	Molecular weight	Equivalent weight of the Salt
NaCl	1x1=1	58.5	58.5/1 = 58 5
Na_2C0_3	2x1 = 2	106	106/2 = 53
Na_2S0_4	2x1 = 2	142	142/2 = 71
$CaC0_3$	1x2=2	100	100/2 = 50

Equivalent weight of Oxidising and Reducing agents

•In a redox reaction, one of the reacting entities is oxidizing agent (OA).and the another entity is reducing agent (RA).

• The oxidizer is recipient of electrons, whereas reducer is releaser of electrons.

• The valence factor for either an oxidizing or reducing agent is equal to the numbers of electrons transferred from one entity to another.

Equivalent weight of Oxidising and Reducing agents

- $Equivalent\ weight\ of\ an\ oxidizing\ agent\ = \frac{Formula\ weight\ of\ oxidizing\ agent}{Number\ of\ electrons\ gain}$
- Equivalent weight of a reducing agent = $\frac{Formula\ Weight\ of\ reducing\ agent}{Number\ of\ electrons\ lost}$

Standard solution :

- When a definite amount of solute is dissolved in a definite volume of a solvent, the solution is said to be as a standard solution.
- A standard solution can be classified into two types:
    - Primary standard solution and
    - Secondary standard solution.
- A primary standard solution contains solutes which shows a high solubility in solvents and are easily available.
- In such solutions, the solutes are in pure state and do not decompose during storage. For example, sodium carbonate solution, oxalic acid solution.
- The substances whose standard solutions cannot be prepared directly are called secondary standards. For example, NaOH,KOH, KMn04,etc.
- In such solutions, the solutes are in impure state and can be dissociate during storage.

normal solution, molar solution

- The solution where one equivalent weight of solute present in one litre of solution is known as a Normal solution.
- Whereas, the solutions which are expressed in terms of mole are known as Molar solutions.

Thank You