CHEMISTRY STUDY MATERIALS FOR CLASS 9

(NCERT based Revision Notes on Chapter - 2)

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Is Matter Around Us Pure

What is concentration?

Ways of representing the concentration of a solution

The concentration of a solution can be represented in many ways

(i) **Mass by the mass percentage of a solution**

= (Mass of solute / Mass of solution) × 100

(ii) **Mass by volume percentage of a solution**

= (Mass of solute/ volume of solution)×100

Suspension and its properties

A **suspension** is a heterogeneous mixture in which the solute particles do not dissolve but remain suspended throughout the bulk of the medium.

- The solute particles settle down when a suspension is left undisturbed.
- They can be separated from the mixture by **filtration.**

Types of mixtures based on particle size

Classified into:

(i) Solution (ii) Suspension and (iii) Colloidal solution.

Colloidal Solutions

A **colloidal solution** is a mixture in which the substances are regularly suspended in a fluid.

- Classified into: Foam, Emulsion, Sol

Tyndall Effect

Tyndall effect is the scattering of light by particles in a colloid or else particles in a very fine suspension.

- e.g.It can be observed when sunlight passes through the canopy of a dense forest.

Dispersed phase:- The solute-like component of the dispersed particles in a colloid form the **dispersed phase.**

Dispersion medium:- The component in which the dispersed phase is suspended is known as the **dispersing medium.**

Aerosol:- A colloidal solution with dispersed phase solid/liquid and dispersing medium gas is called **Aerosol**. e.g. clouds

Foam:- A colloidal solution with dispersed phase gas and dispersing medium solid/liquid is called **Foam.** e.g. Shaving cream.

Sols:- A colloidal solution with dispersed phase solid and dispersing medium liquid is called **Sol.** e.g. Milk of magnesia, mud.

Gels and emulsions

- A colloidal solution with dispersed phase liquid and dispersing medium solid is called **Gel.**
- A colloidal solution with dispersed phase liquid and dispersing medium liquid is called **Emulsion.**

Evaporation

The process of conversion of water into water vapour is known as **evaporation.**

- It can be used to separate the volatile component (solvent) from its non-volatile solute.

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