

Solutions – Suspensions – Colloids

■ Solution = Solute (Solid) + Solvent (Liquid) (Mixture)

- Greater amount
- No Filtration
- Dispersion on molecular level

The solutions made by dissolving various solutes in water – aqueous solutions (Ex: Water)

The solutions made by dissolving solutes in organic liquids – non-aqueous solutions

Organic liquids – alcohol, acetone, carbon disulphide, benzene, carbon tetrachloride

Solution – Homogeneous Mixture

- Sea Water
- Copper Sulphate Solution
- Alcohol & Water Mixture
- Sugar Solution
- Salt Solution
- Metal Alloys (Paper, Coin)

True Solutions – Molecular Solutions

- Size of solute = 10^{-9} m in diameter (Maximum)
- No Scatters light (Limitation)

Types of Solutions

1. Solid + Solid → Metal Alloys (Brass = Zn + Cu)
2. Liquid + Liquid → Vinegar (Acetic Acid + Water)
3. Gas + Liquid → Soda Water (CO_2 + H_2O)
4. Gas + Gas → Air
5. Solid + Liquid → Sugar Solution