

Chap 12 “The Solution”

Fill in the blanks

- 1) Water is a good solvent.
- 2) Carbon dioxide is dissolved in flavored water to make fizzy drinks.
- 3) A substance which dissolves is said to be soluble substance.
- 4) The substance which will not dissolve is called insoluble substance.
- 5) Chalk is insoluble in water.
- 6) Distillation involves two processes boiling and condensing.
- 7) The word crystal comes from ancient Greek word for ice.

Subtopic:

Separating solids from liquids

Crystals from solution

Q1. Define the following:

1. SOLUTION: The mixture of solid and liquid is called solution.
2. SOLUTE: The solid substance that is dissolved in a solution is called solute.
3. SOLVENT: The liquid in which the solute dissolves.
4. SEDIMENT: A layer formed by the settling of insoluble particles at the bottom of a liquid is called sediment.

Q2. What do these words mean?

- Filtration: It is a process of separating a solid from a liquid by using filter paper.
- Filtrate: The liquid obtained after filtration process is called filtrate.
- Residue: The solid that is trapped in the filter paper during filtration is called residue.

Q3. Describe how would you make copper sulphate crystals in laboratory?

Ans.

1. Heat CuSO_4 solution to evaporate water till the solution becomes concentrated.
2. Crystals will be formed as this solution cools down.
3. Leave the solution in warm place to let the water to evaporate and small crystals of CuSO_4 will left behind.

Q4. What is solubility?

Ans. It is the amount of solute that can be dissolved in fixed volume of solvent.

SUBTOPIC:

Liquids from solutions

Separating colored substances

Solubility

Name the following:

1. Method used for separating colored substances
Chromatography
2. Alcohol and water are separated by:
Fractional distillation
3. To separate the colors in black ink the absorbent used is
Filter paper
4. The formation of crystals when a saturated solution cools down.
Crystallization