

Science

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(Chapter 2)(Is Matter Around Us Pure)(Intext Questions)

Class - 9

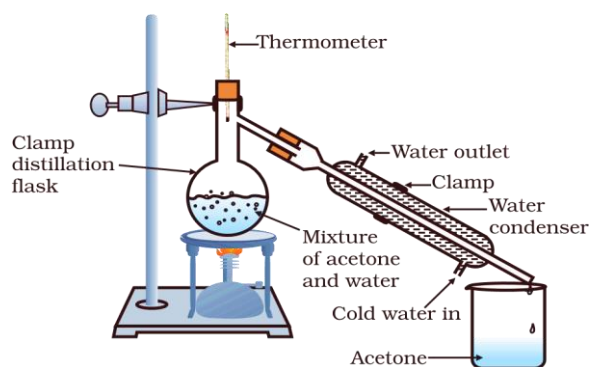
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Question 1:

How will you separate a mixture containing kerosene and petrol (difference in their boiling points is more than 25°C), which are miscible with each other?

Answer 1:

A mixture of two miscible liquids having a difference in their boiling points more than 25°C can be separated by the method of distillation. Thus, kerosene and petrol can be separated by distillation



In this method, the mixture of kerosene and petrol is taken in a distillation flask with a thermometer fitted in it. We also need a beaker, a water condenser, and a Bunsen burner. The apparatus is arranged as shown in the above figure. Then, the mixture is heated slowly. The thermometer should be watched simultaneously. Kerosene will vaporize and condense in the water condenser. The condensed kerosene is collected from the condenser outlet, whereas petrol is left behind in the distillation flask.

Question 2:

Name the technique to separate

- (i) butter from curd
- (ii) salt from sea-water
- (iii) camphor from salt.

Answer 2:

- (i) Butter can be separated from curd by **centrifugation**.
- (ii) Salt can be separated from sea-water by **evaporation**.
- (iii) Camphor can be separated from salt by **sublimation**.

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Question 3:

What type of mixtures is separated by the technique of crystallization?

Answer 3:

By the technique of crystallization, pure solids are separated from impurities. For example, salt obtained from sea is separated from impurities; crystals of alum (*Phitkari*) are separated from impure samples.

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