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Class–9

SCIENCE

Chapter – 2

IS MATTER AROUND US PURE

Part – 5

Intext Questions

Deeksha Pahilajani

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INTEXT QUESTION

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1 What is meant by a substance?

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INTEXT QUESTION



1 What is meant by a substance?

Answer :

A pure substance consists of a single type of particles.

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INTEXT QUESTION



2 | List the points of differences between homogeneous and heterogeneous mixtures.



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INTEXT QUESTION



even distribution

2 List the points of differences between homogeneous and heterogeneous mixtures.

Answer :

Homogeneous mixture	Heterogeneous mixture
A mixture in which different constituents are mixed uniformly.	A mixture in which different constituents are not mixed uniformly
They cannot have physically distinct parts.	They have physically distinct parts.
Examples : Sugar solution, soda water	**Examples :** Sugar and sand mixture, milk, blood

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INTEXT QUESTION

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↑ Colloids

3 How are sol, solution and suspension different from each other?



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3 How are sol, solution and suspension different from each other?

Answer :

Property	Sol	Solution	Suspension
Nature	Heterogeneous	Homogeneous	Heterogeneous
Particle size	More than solution particles but less than suspension particles	Very small, can't be seen with naked eyes	Big size particles
Appearance	Generally clear	Clear	Opaque
Visibility	Visible with ultramicroscope	Not visible	Visible with naked eyes

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Property	Sol	Solution	Suspension
Tyndall effect	Show	Do not show	May show
Settling of particles	Settle only on centrifugation	Do not settle	Settle of their own
Stability	Stable	Stable	Unstable

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4 To make a saturated solution, 36 g of sodium chloride is dissolved in 100 g of water at 293 K. Find its concentration at this temperature.

mg

mass by mass %

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4 To make a saturated solution, 36 g of sodium chloride is dissolved in 100 g of water at 293 K. Find its concentration at this temperature.

Answer :

Mass of solute (sodium chloride) = 36 g

Mass of solvent (water) = 100 g

Mass of solution = Mass of solute + Mass of solvent = 36 g + 100 g = 136 g

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$$\text{Concentration} = \frac{\text{Mass of solute}}{\text{Mass of solution}} \times 100$$

$$= \frac{36}{136} \times 100 = 26.47\%$$

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INTEXT QUESTION

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5 Classify the following as chemical or physical changes:

- Cutting of trees P
- Melting of butter in a pan P
- Rusting of almirah C
- Boiling of water to form steam P

L → G

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INTEXT QUESTION



5 Classify the following as chemical or physical changes:

- Passing of electric current, through water and the water breaking down into hydrogen and oxygen gases
- Dissolving common salt in water
- Making a fruit salad with raw fruits
- Burning of paper and wood