

Pure Substances and Mixtures

Chapter 11: Pure Substances and Mixtures · Topic 1

Key Concept

A pure substance, like gold or water, has a consistent composition throughout and specific, definite properties.

A mixture, like sand and salt or salad, combines two or more substances that are not chemically bonded and can be separated.

Mixtures can be homogeneous (uniform throughout, like saltwater) or heterogeneous (not uniform, like a salad).

Mixtures can be separated using physical methods like filtration, evaporation, or sorting, since substances aren't chemically combined.

Quick Revision Notes

- A pure substance has a fixed composition.
- Examples: gold, water.
- A mixture combines substances without chemical bonding.
- Examples: sand and salt, salad.
- Homogeneous mixtures are uniform, like saltwater.
- Heterogeneous mixtures are not uniform, like salad.
- Mixtures can be separated by physical methods.
- Methods include filtration, evaporation and sorting.

Practice Questions

- 1 Give an example of a pure substance and a mixture.
- 2 Discuss the difference between homogeneous and heterogeneous mixtures.
- 3 Explain how you could separate sand from water.
- 4 Research a method to separate a mixture.
- 5 Discuss why saltwater is homogeneous.
- 6 Discuss why salad is heterogeneous.