Is Matter Around Us Pure Mixture

Difference between Mixtures and Compounds:-

Mixtures			Compounds
1.	Elements or compounds just mix	1.	Elements react to form new compounds.
	together to form a mixture and no new		
	compound is formed		
2.	A mixture has variable composition.	2.	The composition of each new substance is always fixed.
3.	A mixture shows the proposition constituent substance.	3.	The new substance has totally different properties.
4.	The constituents can be separated fairly easily by physical methods	4.	The constituents can be separated only by chemical electrochemical methods.

Introduction of Mixtures:-

A mixture is a substance which consists of two or more elements or compounds not chemically combined together. All the solutions are mixtures. Some of the examples of mixtures are: Air, Gunpowder, Milk, Sea-water, Ink.

Properties of Mixtures: -

1) They can be separated into its constituents by physical processes (filtration, evaporation, sublimation, distillation)

2) A mixture shows the properties of all its constituents present in it.

3) Formation of mixture is a physical change ie energy (in the form of heat, light etc) is usually neither given out nor absorbed in the preparation of a mixture.

4) The constituents are present in any proportion by mass.

5) They does not have definite melting and boiling point.

6) They can be homogeneous or heterogeneous.

Class-IX

Chemistry

Types of Mixtures:-

Depending upon the nature of components a mixtures can be divided into two types

- 1. Homogeneous mixtures
- 2. Heterogeneous mixtures

1. Homogeneous mixtures:

Those mixtures in which the substances are completely mixed together and are indistinguishable from one another, are called homogeneous mixtures. All the homogeneous mixtures are called solutions. **Examples** of homogeneous mixtures: Sugar solution, Salt solution, Sea-water, Alcohol and water mixture, Petrol and oil mixture.

A mixture of non-reacting gases can never be heterogeneous. It is always homogeneous in nature. This means that gases cannot form colloidal solutions.



2. Heterogeneous mixtures:

Those mixtures in which the substances remain separate and one substance is spread throughout the other substance as small particles, droplets or bubbles, are called heterogeneous mixtures. The suspensions of solids in liquids are also heterogeneous mixtures. A mixture containing two (or more) immiscible liquids is also a heterogeneous mixtures. All the suspensions and colloids are heterogeneous mixtures. **Examples** of heterogeneous mixtures are: Sugar and sand mixture, Salt and sand mixture, Milk, Soap solution, Blood. Most of the mixtures are heterogeneous, only solutions and alloys are homogeneous mixtures.