

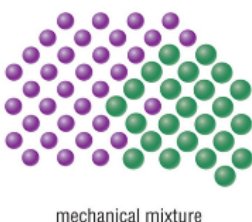
Pure Substances and Mixtures

Pure substances contain only one kind of particle throughout. All samples of pure substances have the same properties whether the sample is small or large. Some pure substances are found in nature, but many substances are made pure by humans.

A **mixture** contains two or more pure substances. Mixtures can be any combination of solids, liquids, and gases. (Ex. coke → liquid water, solid sugar, and carbon dioxide gas)



Heterogeneous mixtures have two or more substances that can be seen and felt. If you take a sample from this mixture, it may have different properties than another sample you take. Another name for a heterogeneous mixture is a **mechanical mixture**.



The particles in the pure substances of **homogeneous mixtures** mix together so completely that the mixture looks and feels as though it is made of only one substance. No matter where you sample it, or how small the sample is, the properties of this mixture are always the same. Another name for a homogeneous mixture is a **solution**.

