

GENERAL CHEMISTRY

STANDARD 1.14

1.14: Distinguish among a mixture, compound, and a pure substance

DEFINITIONS

- Element
 - Basic building blocks of all matter
 - Atom – singular component of element
 - Atom – smallest component of matter that retains characteristics of element
 - Organized on Periodic Table of Elements
 - 91 naturally-occurring elements
 - 27 synthetic (man-made) elements
- Compound
 - Substance with two or more elements chemically combined
 - Have different characteristics than individual elements
 - Examples include sodium chloride (NaCl), ammonia (NH₃)

DEFINITIONS

- Pure Substance
 - Substance that only contains a single type of particle
 - Only one type of element (gold, hydrogen, etc.)
 - Only one type of compound (water, ammonia, etc.)
- Mixture
 - Substance with two or more substances not chemically combined
 - Individual substances can be separated by physical means
 - Examples include air, a tossed salad, salt water, muddy water