

Chemistry Vocabulary Words

Atom: the smallest object that retains the properties of an element.

Molecule: an electrically neutral group of two or more atoms held together by electrical bonds.

Compound: a substance made when two or more elements are chemically bound together. Water is an example of this, made of 2 Hydrogen and 1 Oxygen bound together as H_2O .

Matter: any substance that has mass and volume.

Solid: one of the fundamental states of matter, in which the atoms are tightly packed together, giving the substance rigidity and resistance to force applied on its surface.

Liquid: a state of matter in which the atoms move relatively freely, making liquids changeable in shape but not mass or volume.

Gas: a state of matter with no defined volume or shape. The atoms of a gas are loosely linked and move quickly and freely.

Element: a substance in which all the atoms have the same atomic number, which means the same number of protons.

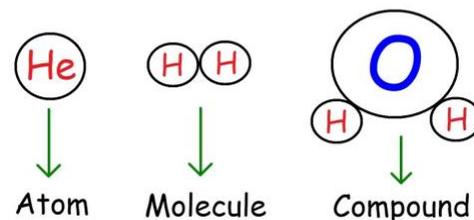
Mixture: two or more substances combined physically but not chemically (think all the toys in the toy box or a jar of multi-colored jelly beans, these are mixtures).

Solution: a mixture made when a solid is dissolved into a liquid. The solid and liquid can still be separated physically, generally by evaporation, but appear to be combined. Ice tea and lemonade made with drink powders are an example of solutions.

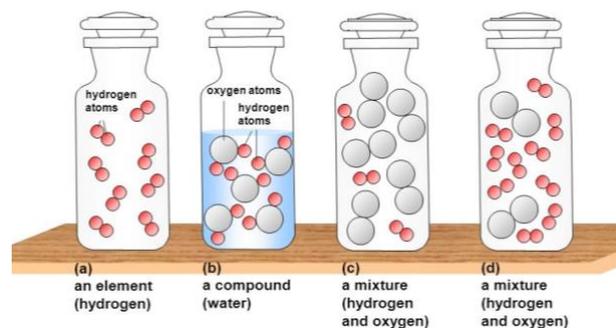
Saturated Solution: a solution in which so much solid has been dissolved that no more can be added. If it is, it will simply sit in the liquid without dissolving.

Chemical: any substance used in, or produced by, a reaction involving changes in atoms or molecules.

Atoms vs Molecules



Elements, Compounds, and Mixtures



Chemical Reaction: a process that leads to the transformation of one substance to another, due to a chemical process.

Acid: a chemical substance that neutralizes bases, dissolves some metals, and turns litmus strips red; typically, liquid acids are corrosive or sour-tasting.

Base: a chemical substance that releases hydroxide (OH⁻) ions in aqueous solution. Bases tend to be slippery to the touch (e.g., soap), can taste bitter, and react with acids.

pH: the measurement units used to specify how acidic (lower pH) or basic (higher pH) a water-based solution is.

Reactant: substances initially present in a chemical reaction that are consumed during the reaction to make products.

Product: the substance formed from chemical reactions, unique from the substances originally present before the reaction.