

Unit 1 DEFINITIONS Updated

MATTER: a sample of matter is a large collection of very small particles. There are three kinds of particles: atoms, ions, and molecules. The two kinds of matter are pure substances and mixtures.

PURE SUBSTANCE: A pure substance is a sample of matter (a very large collection of very small particles) in which the particles are all alike. The pure substances are the elements and the compounds.

ELEMENT: An element is one type of pure substance. An element may be composed of atoms or of molecules.

COMPOUND: A compound is one type of pure substance. A compound may be made of molecules or ions.

PARTICLES: The particles of which matter is made are atoms, molecules and ions.

MOLECULE: A molecule is a single particle that is composed of two (or more) nonmetal atoms that are held together by covalent bond(s).

ION: An ion is a particle that has electrical charge. The charge is either positive or negative. An ion may be either monatomic or polyatomic.

MONATOMIC ION: A monatomic ion is an atom that has electrical charge, either positive or negative.

POLYATOMIC ION: A polyatomic ion is a molecule that has electrical charge, either positive or negative.

MIXTURE: A mixture is a sample of matter in which the particles are not all alike.

FORMULA UNIT: The lowest whole number ratio of the ions in an ionic compound. A formula unit of an ionic compound is used analogously to molecule of a molecular compound.