

**Part 1:** Classify each of the materials below. In the center column, state whether the material is a **pure substance** or a **mixture**. If the material is a pure substance, further classify it as either an **element** or **compound** in the right column. Similarly, if the material is a mixture, further classify it as a **solution** (homogeneous mixture) or a **heterogeneous mixture** in the right column.

	<i>Material</i>	<i>Pure Substance or Mixture</i>	<i>Element, Compound, Solution, Heterogeneous Mixture</i>
1.	concrete	Mixture	Heterogeneous Mixture
2.	sugar + pure water ( $C_{12}H_{22}O_{11} + H_2O$ )	Mixture	Solution
3.	iron filings (Fe)	Pure Substance	Element
4.	limestone ( $CaCO_3$ )	Pure Substance	Element
5.	Pacific Ocean	Mixture	Heterogeneous Mixture
6.	magnesium (Mg)	Pure Substance	Element
7.	acetylene ( $C_2H_2$ )	Pure Substance	Compound
8.	tap water in a glass	Mixture	Solution
9.	soil	Mixture	Heterogeneous Mixture
10.	chromium (Cr)	Pure Substance	Element
11.	Chex mix	Mixture	Heterogeneous Mixture
12.	salt + pure water ( $NaCl + H_2O$ )	Mixture	Solution
13.	benzene ( $C_6H_6$ )	Pure Substance	Compound
14.	muddy water	Mixture	Heterogeneous Mixture
15.	brass (Cu mixed with Zn)	Mixture	Solution