

Chemistry: *Classifying Matter*

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Name: VANSWERS  
Date: \_\_\_\_\_

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 **homogeneous** or **heterogeneous** in the right column. Write the entire word in each space to earn full credit.

Material	Pure Substance or Mixture	Element, Compound, Solution or Mixture
concrete	M	M
sugar + pure water ( $C_{12}H_{22}O_{11} + H_2O$ )	M	S
iron filings (Fe)	PS	E
limestone ( $CaCO_3$ )	PS	C
orange juice (w/pulp)	M	S
Pacific Ocean	M	S
air inside a balloon	M	S
aluminum (Al)	PS	E
magnesium (Mg)	PS	E
acetylene ( $C_2H_2$ )	PS	C
tap water in a glass	M	S
soil	M	M
pure water ( $H_2O$ )	PS	C
chromium (Cr)	PS	E
Chex mix	M	M
salt + pure water ( $NaCl + H_2O$ )	M	S
benzene ( $C_6H_6$ )	PS	C
muddy water	M	M
brass (Cu mixed with Zn)	M	S
baking soda ( $NaHCO_3$ )	PS	C