

Name: _____

Worksheet: Classifying Matter

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.
- 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	→ Element or Compound
	Mixture	→ Solution(Homogeneous) or Mechanical mixture (Heterogeneous)
Laundry detergent (contains white and blue crystals)	Mixture	Heterogeneous
sugar + pure water ($C_{12}H_{22}O_{11}$ + H_2O)	Mixture	Homogeneous
iron filings (Fe)	Pure substance	Element
limestone ($CaCO_3$)	Pure substance	Compound
orange juice (water and pulp)	Mixture	Heterogeneous
Pacific Ocean (Water and Salt)	Mixture	Homogeneous
air	Mixture	Homogeneous
aluminum (Al)	Pure substance	Element
magnesium (Mg)	Pure substance	Element
acetylene (C_2H_2)	Pure substance	Compound
tap water in a glass	Mixture	Homogeneous
pure water (H_2O)	Pure substance	Compound
soil	Mixture	Heterogeneous
chromium (Cr)	Pure substance	Element
baking soda ($NaHCO_3$)	Pure substance	Compound
salt + pure water ($NaCl$ + H_2O)	Mixture	Homogeneous
benzene (C_6H_6)	Pure substance	Compound
muddy water	Mixture	Heterogeneous
brass (Cu mixed with Zn)	Mixture	Homogeneous
Pizza	Mixture	heterogeneous

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