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)		
sugar + pure water ($C_{12}H_{22}O_{11}$ + H_2O)		
iron filings (Fe)		
limestone ($CaCO_3$)		
orange juice (water and pulp)		
Pacific Ocean (Water and Salt)		
air		
aluminum (Al)		
magnesium (Mg)		
acetylene (C_2H_2)		
tap water in a glass		
pure water (H_2O)		
soil		
chromium (Cr)		
baking soda ($NaHCO_3$)		
salt + pure water (NaCl + H_2O)		
benzene (C_6H_6)		
muddy water		
brass (Cu mixed with Zn)		
Pizza		