

Classifying Matter Practice Worksheet

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.

Material	Pure Substance or Mixture	Element, Compound, Homogeneous, Heterogeneous
sugar + pure water ($C_{12}H_{22}O_{11} + H_2O$)		
iron filings (Fe)		
limestone ($CaCO_3$)		
orange juice (w/pulp)		
magnesium (Mg)		
acetylene (C_2H_2)		
soil		
chromium (Cr)		
Chex mix		
salt + pure water ($NaCl + H_2O$)		
benzene (C_6H_6)		
muddy water		
brass (Cu mixed with Zn)		
baking soda ($NaHCO_3$)		

Material	Pure Substance or Mixture	Element, Compound, Homogeneous, Heterogeneous
sugar + pure water ($C_{12}H_{22}O_{11} + H_2O$)	Mix	homo
iron filings (Fe)	pure	element
limestone ($CaCO_3$)	pure	pure comp.
orange juice (w/pulp)	mix	hetero
magnesium (Mg)	pure	element
acetylene (C_2H_2)	pure	compound
soil	mix	hetero
chromium (Cr)	pure	element
Chex mix	mix	hetero
salt + pure water ($NaCl + H_2O$)	mix	homo
benzene (C_6H_6)	pure	compound
muddy water	mix	hetero
brass (Cu mixed with Zn)	mix	homo → alloy
baking soda ($NaHCO_3$)	pure	compound