

Concept Review

Section: Properties of Matter

1. **Classify** each of the following as a physical or chemical property of sulfur.

- _____ a. Its density is 2.97 g/cm^3 .
- _____ b. It reacts with hydrogen to form a gas.
- _____ c. It is a yellow solid.
- _____ d. Its melting point is 112°C .
- _____ e. It combines with oxygen.

2. **Classify** each of the following as a physical or chemical property of phosphorus.

- _____ a. It is a white, waxy solid.
- _____ b. It burns in air.
- _____ c. Its melting point is 44.1°C .
- _____ d. It has a density of 1.82 g/cm^3 .
- _____ e. Its boiling point is 280.3°C .

3. **Explain** how aluminum is a suitable material to use in making cans based on its physical and chemical properties.

4. **Calculate** the mass of a sample of pure silver (density = 10.49 g/cm^3) that has a volume of 12.99 cm^3 .

5. **Compute** the density of an 820 g sample of pure silicon occupying a 350 cm^3 container.

6. **Describe** how the characteristic properties of a piece of ice are different from its other properties.
