

Physical Vs. Chemical Properties

A physical property is observed with the senses and can be determined without destroying the object. For example, color, shape, mass, length and color are all examples of physical properties.

A chemical property indicates how a substance reacts with something else. The original substance is fundamentally changed in observing a chemical property. For example, the ability of iron to rust is a chemical property. The iron has reacted with oxygen, and the original iron metal is changed. It now exists as iron(III) oxide, a different substance with a different formula. $4\text{Fe} + 3\text{O}_2 \rightarrow 2\text{Fe}_2\text{O}_3$

Classify the following properties as either chemical or physical by putting a check in the appropriate column.

	Physical Property	Chemical Property
1. blue color	X	
2. density	X	
3. flammability		X
4. solubility	X	
5. reacts with acid to form H_2		X
6. supports combustion		X
7. volume	X	
8. melting point	X	
9. reacts with water to form a gas		X
10. reacts with a base to form water		X
11. hardness	X	
12. boiling point	X	
13. can neutralize a base		X
14. luster	X	
15. conductivity	X	