Properties

Physical properties can be observed without producing new substances. Chemical properties describe how a substance interacts (or fails to interact) with other substances to produce new substances.

***Extensive properties*** depend on the amount of matter in a sample. ***Intensive properties*** do not depend on the amount of matter in the sample. **All chemical properties are intensive. Physical properties can be intensive or extensive.**

Classify each of the following properties as extensive physical, intensive physical, or chemical.

|  |  |
| --- | --- |
| Color |  |
| Combustibility |  |
| Hardness |  |
| Density |  |
| Mass |  |
| Melting point |  |
| Ductility |  |
| Volume |  |
| Failure to react with other substances |  |
| Odor |  |
| Weight |  |
| Malleability |  |
| Tendency to corrode |  |
| Flammability |  |
| Solubility |  |
| Reacts with acids to form hydrogen gas |  |
| Sour taste |  |
| Texture |  |
| Hardness |  |
| Luster |  |