

Properties: Chemical vs Physical Extensive vs Intensive Quantitative vs Qualitative

Name _____

Put each underlined word (group of words) or numbers in the appropriate one of the five category columns below.

Solid

Sitting on the desk is a heavy 38.1 g solid cube has a small volume of 2.0 ml, has a melting point of 3818°C and has a high density of 19.05 g/ml. The cube is shiny silver-color and is soft. It currently has a temperature of 24.5°C. It burns in air and is ductile and malleable. It slowly decomposes in water, and reacts with acids but not bases.

Liquid

The beaker holds a large volume of 250.0 ml of a blue-colored liquid which has a boiling point of 112°C and has a density of 1.15 g/ml. The mass in the beaker is 287.5 g and its temperature is very hot. The liquid is volatile (evaporates easily) and is not flammable.

Gas

The instructor is holding a big 35 L balloon filled with a gas less dense than air. The gas is odorless and colorless. It is explosive, and has a current temperature of 25°C.

chemical properties	physical properties			
	intensive		extensive	
	qualitative	quantitative		qualitative

Practice problems are crafted carefully in this course to help you determine if you understand the concepts and problems being presented. Remember, answers are provided for you so that you can self-correct and identify any problems or misconceptions you are having. If you do not “test” yourself by doing the homework and then checking your progress, it will be hard for you to know how you are doing (and the need for help if you are having difficulty) and perhaps make it difficult for you to have success on the graded opportunities (tests/quizzes). It is very important that as you try the practice sheets you must make note of the problems that you do not understand so that you can ask about those questions in class. We will not “go over” practice work unless you initiate the questions.

chemical properties	physical properties			
	intensive		extensive	
	qualitative	quantitative		qualitative
burns in air decompose in water reacts with acids not bases	solid high density soft ductile & malleable	mp 3818°C 19.05 g/ml temp 24.5°C	38.1 g 2.0 ml	heavy small
not flammable	blue-colored temperature is very hot volatile (evaporates)	bp 112°C 1.15 g/ml	250 ml 287.5 g	large
explosive	less dense odorless & colorless	25°C	35 L	big