

Pure Substance Vs. Mixtures

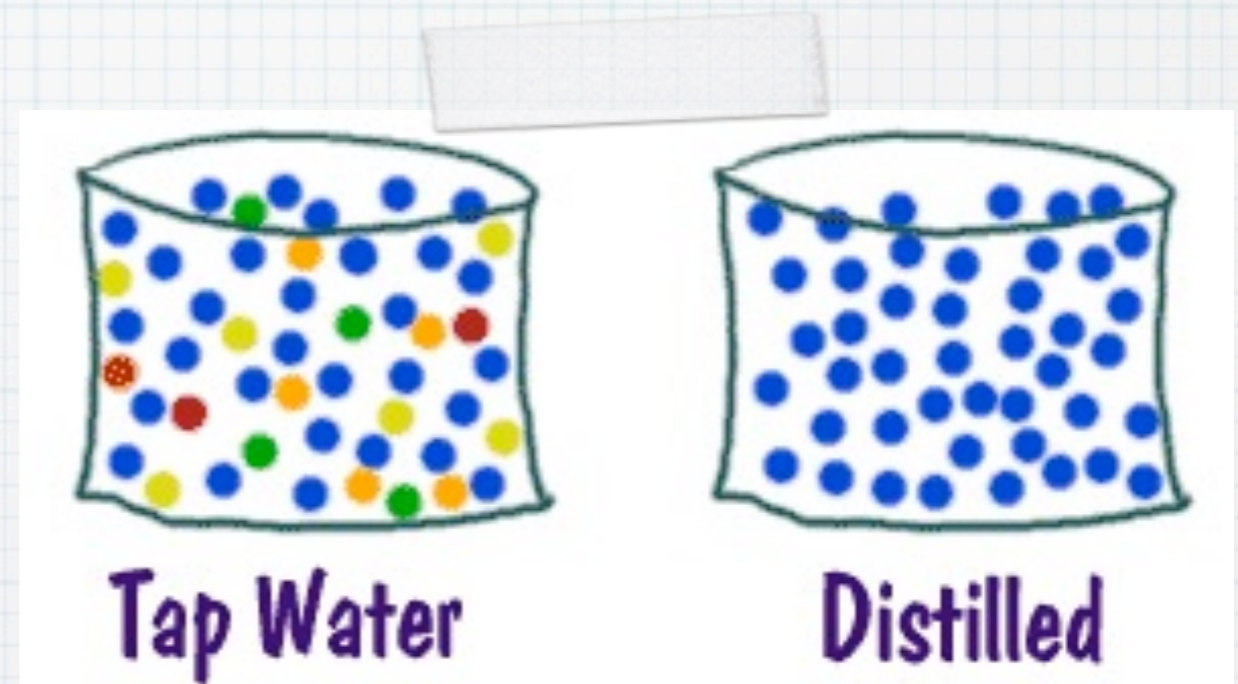
Classifying Matter



Pure Substances

- * Pure Substance: A substance that is made up of only one type of particle.

- * Example: Distilled water

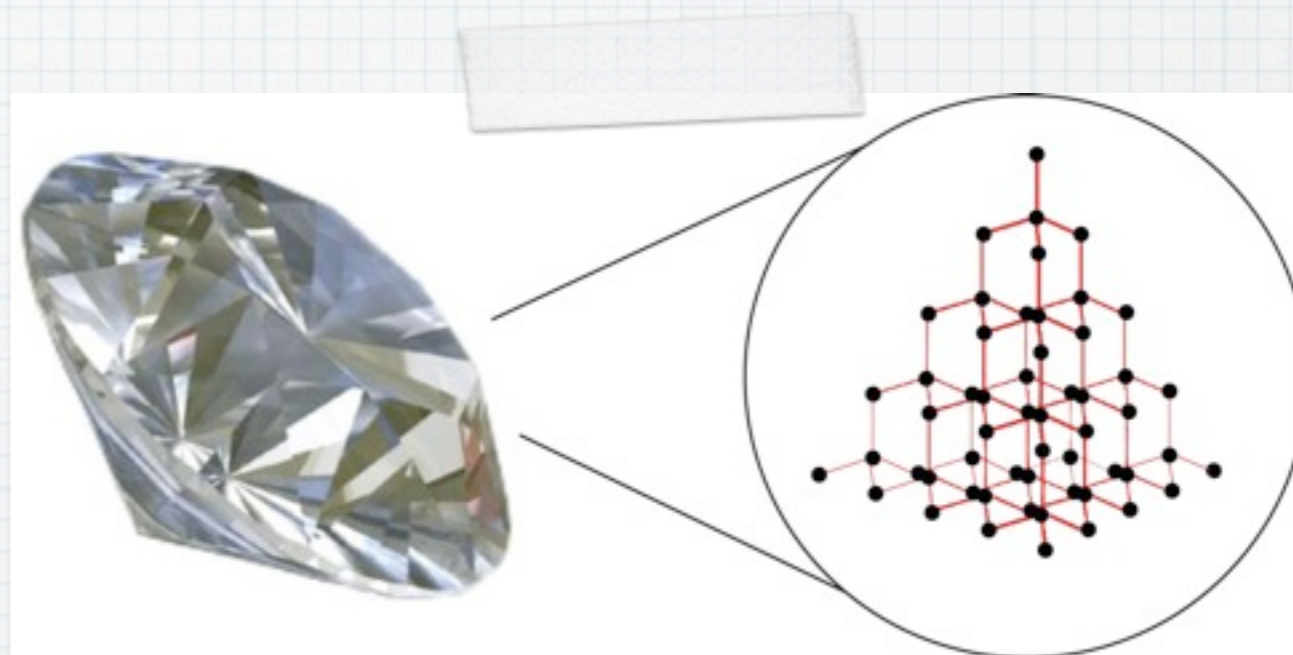


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Pure Substances

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- * There are two types of pure substances
- * i) Elements:
- * Have only one type of atom.
- * Cannot be broken down into anything simpler.



Pure Substances

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- * ii) Compounds
- * Have two or more types of atoms in fixed proportions.
- * Ex: H_2O , CO_2 , CO



Mixtures



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- * Two types of mixtures:
 - * i) Mechanical mixtures: a mixture in which you can distinguish between different types of particles.
 - * Ex: Granola, Trail Mix, Party Mix
 - * HETEROGENEOUS

Mixtures



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- * ii) Solutions: a solution looks like a pure substance but it contains more than one type of particle. You cannot visually distinguish between the different types of particles.
- * Ex: Apple Juice

Question

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- * How can you tell if a gas or a liquid mixture is a solution or a mechanical mixture?

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- * How can you tell if a gas or a liquid mixture is a solution or a mechanical mixture?
- * Answer: all liquid and gas solutions are clear. if a liquid or gas mixture appears murky or opaque, it is a mechanical mixture (milk, fog, orange juice)

Alloys



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- * Alloys: A solid solution of two or more metals.
- * Ex: Tin and lead melted together to form solder. Solder is used to join metal components such as wires in electrical circuits and copper pipes in plumbing.