



Name _____ Class _____ Date _____

- 1 A mixture of crystals of salt and sugar is added to water and stirred until all solids have dissolved. Which statement best describes the resulting mixture?
- A The mixture is homogeneous and can be separated by filtration.
 - B The mixture is homogeneous and cannot be separated by filtration.
 - C The mixture is heterogeneous and can be separated by filtration.
 - D The mixture is heterogeneous and cannot be separated by filtration.

- 2 Which must be a mixture of substances?
- A solid
 - B liquid
 - C gas
 - D solution



- 3 Fractional distillation is a technique used to separate complex mixtures of hydrocarbons based on differences in their

- A heats of fusion
- B heats of vaporization



- 4 A dry mixture of KNO_3 and sand could be separated by
- A adding water to the mixture and filtering
 - B adding water to the mixture and evaporating
 - C heating the mixture to a high



PREVIEW

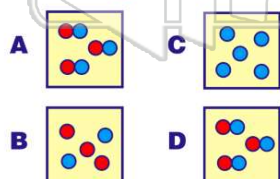
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- B C_2H_4
- C C_3H_6
- D C_4H_8

- C 53.5 g/mole
- D 95.5 g/mole



- 9 Given: ● = particle X
● = particle Y
- Which diagram represents a mixture?



- 10 What is the correct IUPAC name for the compound NH_4Cl ?
- A nitrogen chloride
 - B nitrogen chlorate
 - C ammonium chloride
 - D ammonium chlorate



ANSWER KEY

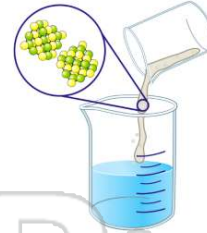
A mixture of crystals of salt and sugar is added to water and stirred until all solids have dissolved. Which statement best describes the resulting mixture?

- A The mixture is homogeneous and can be separated by filtration.
- B The mixture is homogeneous and cannot be separated by filtration.
- C The mixture is heterogeneous and can be separated by filtration.
- D The mixture is heterogeneous and cannot be separated by filtration.

(b)

Which must be a mixture of substances?

- A solid
- B liquid
- C gas
- D solution



(d)

Fractional distillation is a technique used to separate complex mixtures of hydrocarbons based on differences in their

- A heats of fusion
- B heats of vaporization
- C melting points
- D boiling points



(d)

A dry mixture of KNO_3 and sand could be separated by

- A adding water to the mixture and filtering
- B adding water to the mixture and evaporating
- C heating the mixture to a high temperature
- D cooling the mixture to a low temperature

(a)



PREVIEW

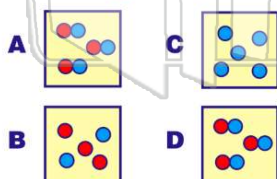
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- C C_3H_6
- D C_4H_8

33.3 g/mole
???

Given: ● = particle X
● = particle Y

Which diagram represents a mixture?



(b)

What is the correct IUPAC name for the compound NH_4Cl ?

- A nitrogen chloride
- B nitrogen chlorate
- C ammonium chloride
- D ammonium chlorate

(c)