What do you need to make a hot dog?

Can we make an equation for the ingredients for a hot dog?

Dec 14-11:42 AM

What do you need to make a hot dog?

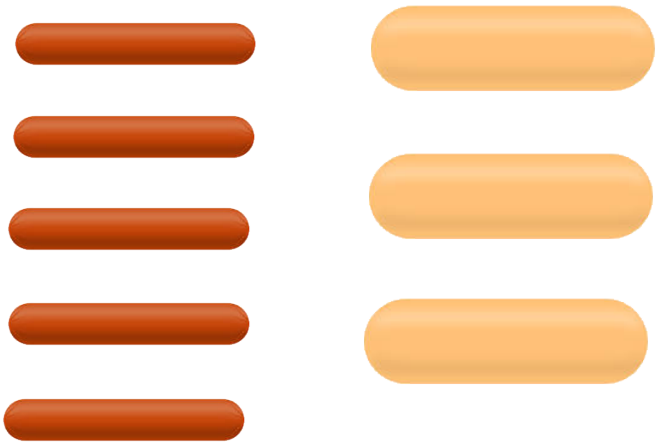
Bun

hot dog

Can we make an equation for the ingredients for a hot dog?

Bu + Hd → Buhd

How many hot dogs can I make with the following ingredients?

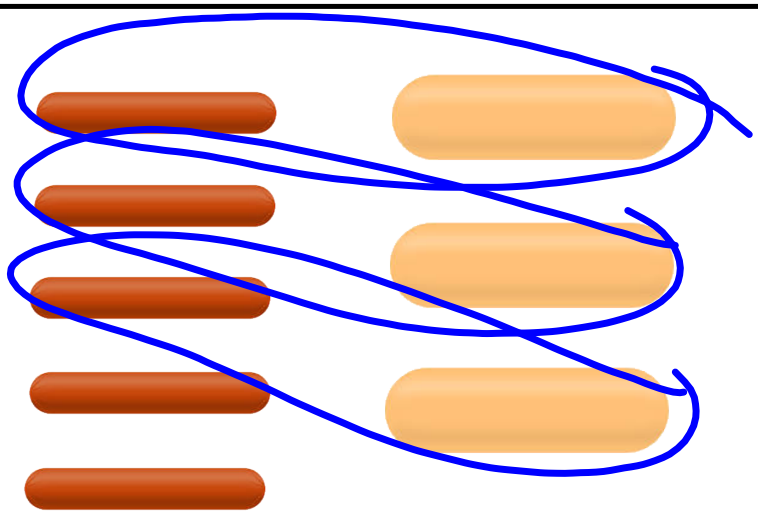


What is limiting the number of hot dogs I can make?

What ingredient do I have extra of?

Dec 15-2:23 PM

How many hot dogs can I make with the following ingredients?



What is limiting the number of hot dogs I can make?

Buns

What ingredient do I have extra of?

hot dogs

Dec 15-2:23 PM

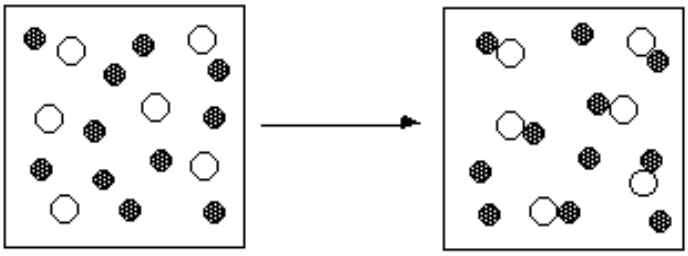
Limiting Reactants

Limiting reactant: the reactant that limits how much product can be produced

Excess reactant: the reactant that will have extra when the reaction is complete

Dec 15-3:01 PM

Limiting Reactants:



Ca

S

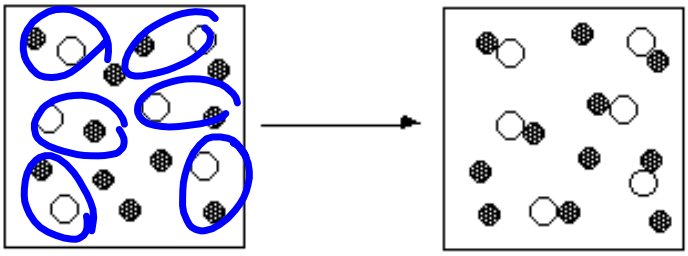
CaS

What is the limiting reactant?

What is in excess?

Dec 15-2:30 PM

Limiting Reactants:



Ca

S

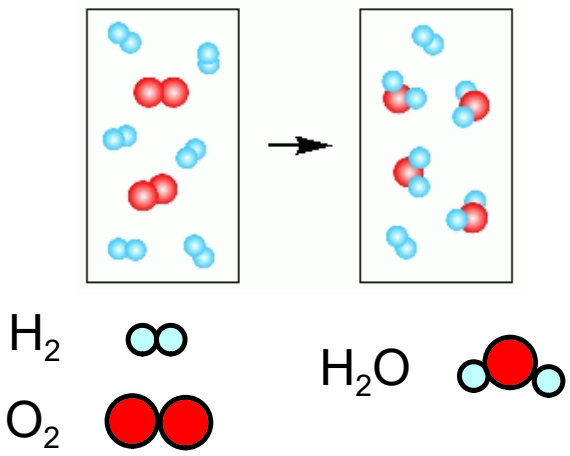
CaS

Ca^{2+} S^{2-}

What is the limiting reactant? Ca

What is in excess? S 5 mol S

Limiting Reactants:

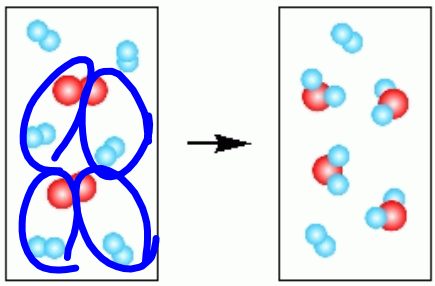


What is the limiting reactant?

What is in excess?

Dec 15-2:30 PM

Limiting Reactants:



H_2

O_2

H_2O

What is the limiting reactant? O_2

What is in excess? H_2 2 mol H_2

Dec 15-2:30 PM

Empirical and Molecular Formulas

What's the difference between the following formulas?

$C_6H_{12}O_6$ CH_2O

Dec 15-2:45 PM

Empirical and Molecular Formulas

empirical formulas: elements are in the lowest ratio

CH_2O

molecular formulas: elements are not in their lowest ratio

$C_6H_{12}O_6$

Dec 15-2:45 PM

Practice

Determine which of the following are empirical formulas and which are molecular formulas. If it is in its molecular formula, change it to its empirical formula:

1. H_2O_2
2. $CaCl_2$
3. WO_2
4. $C_2H_6O_2$

Dec 15-2:45 PM

Practice

Determine which of the following are empirical formulas and which are molecular formulas. If it is in its molecular formula, change it to its empirical formula:

1. H_2O_2 molec. HO
2. $CaCl_2$ emp.
3. WO_2 emp.
4. $C_2H_6O_2$ molec. CH_3O

Dec 15-2:45 PM