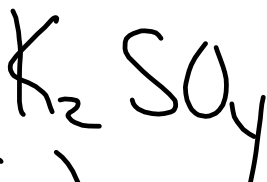


Potassium Sulfate



$$\underline{\underline{2}}(39) + 32 + 4(16)$$

empirical
Formula

VS

Molecular
Formula

Subscripts - reduced.

Coefficient



1 mole C

Subscript
4 moles of H

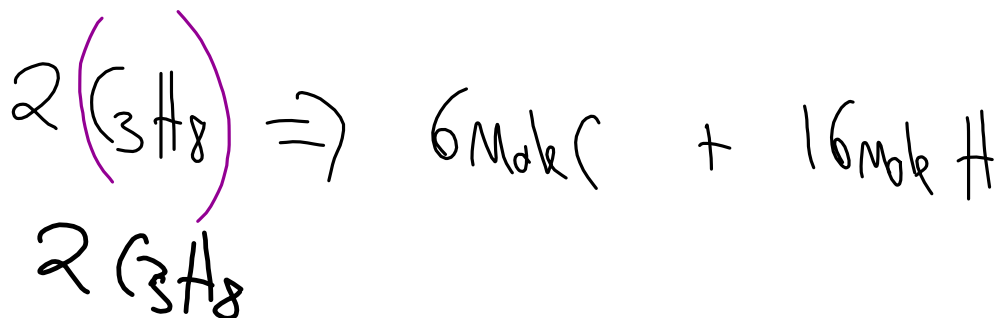
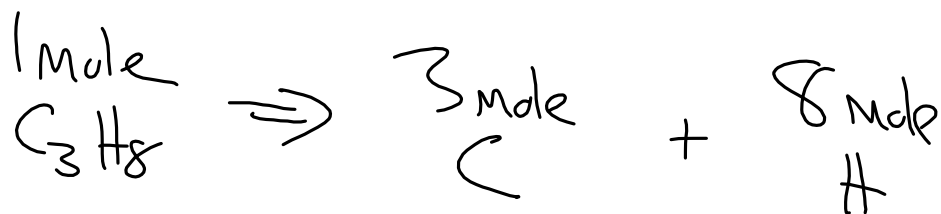
1 1 mole methane (CH₄)

Subscripts

moles of each
ELEMENT in the
compound

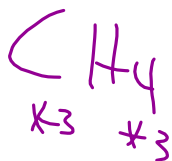
Coefficient

moles of the
COMPOUND



empirical 16 g/mole C_3H_4 What is the molecular formula of C_3H_4 that has a mass of 48 g/mole .

$$\frac{48}{16} = 3$$

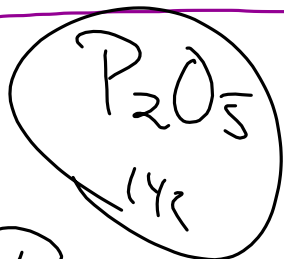
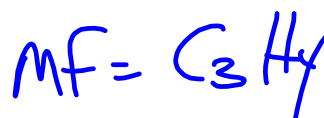


$$3(12) + 12(1) = 48$$

$$36 + 12 = 48$$

Find MF mass = 40 g/mole

$$EF = \frac{C_3H_4}{3(12) + 4(1)} = \frac{C_3H_4}{40}$$

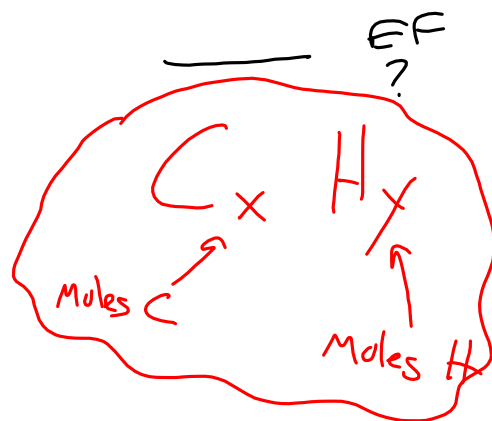


mass = 284 g/mole

$$\frac{284}{142} = 2$$

$$\begin{array}{r} 75\%C \\ 75gC \\ \hline 75gC / 12gC \\ \hline 6.25moleC \\ \hline 6.25 \\ 1 \end{array}$$

$$\begin{array}{r} 25\%H \\ 25gH \\ \hline 25gH / 1gH \\ \hline 25moleH \\ \hline 6.25 \\ 4 \end{array}$$



52.7% K 47.3% Cl

$$\frac{52.7}{39} \qquad \frac{47.3}{35}$$

1.34 1.35

1.34 1.34

1 1

KCl

Empirical formula

1 : 4 CH₄

1.5 : 4

3 : 8 C₃H₈

1.33 : 4

4 : 12 1.66 : 4

0.5	* 2	} After you divide by Smallest #
0.33	* 3	
0.66		
0.25		
0.75	* 4	

P 17 / 4

P 18 / 4, 5, 6