

P18/6 25.3% Cu, 12.9% S, 25.7% O, 36.1% H₂O
Hydrate

Cu	25.3g Cu	1 mole Cu	= 0.395 mole Cu	/0.4 = 1	• <u> </u> H ₂ O
S	12.9g S	32g S	= 0.403 mole S	/0.4 = 1	
O	25.7g O	16g O	= 1.606 mole O	/0.4 = 4	
H ₂ O	36.1g H ₂ O	18g H ₂ O	= 2 mole H ₂ O	/0.4 = 5	

CuSO₄ • 5H₂O

Dec 14-8:34 AM

% Error (Experimental)

Absolute Value

$$\% \text{ Error} = \frac{|\text{Measured} - \text{Accepted}|}{\text{Accepted}} \times 100$$

(PPH)

Actual

Dec 14-9:00 AM

% yield = $\frac{\text{measured}}{\text{accepted}} \times 100$

% error = $\frac{\text{Experimental}}{\text{actual}} \times 100$

Nick
9.5g C
Should have
12g C

9.5
Experimental
12
actual

79.2% yield

% error = $\frac{9.5 - 12}{12} = 20.8\% \text{ error}$

Dec 14-9:10 AM

60% C, 13.4% H, 26.6% O.

① Find EF ② Find M.F. if $\text{MW} = \frac{240 \text{ g}}{\text{mole}}$

$\frac{60 \text{ g C}}{12 \text{ g C}} = 5 \text{ mols C} \quad / 1.66 = 3.01 \quad \text{C}_3\text{H}_8\text{O}_1$

$\frac{13.4 \text{ g H}}{1 \text{ g H}} = 13.4 \text{ mole H} \quad / 1.66 = 8.07$

$\frac{26.6 \text{ g O}}{16 \text{ g O}} = 1.66 \quad / 1.66 = 1$

EF
 $\text{C}_3\text{H}_8\text{O}$
 $3(12) + 8 + 16 = 60$
 $\frac{240}{60} = 4$
 $\text{C}_{12}\text{H}_{32}\text{O}_4$

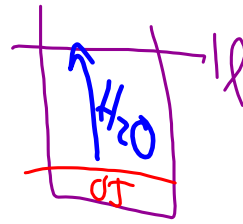
Dec 14-9:15 AM

(M) MOLARITY → measure of concentration

$$M = \frac{\text{Moles solute}}{\text{L of solution}}$$



Water + OJ concentrate
Homogeneous Mixture



Dec 14-9:30 AM

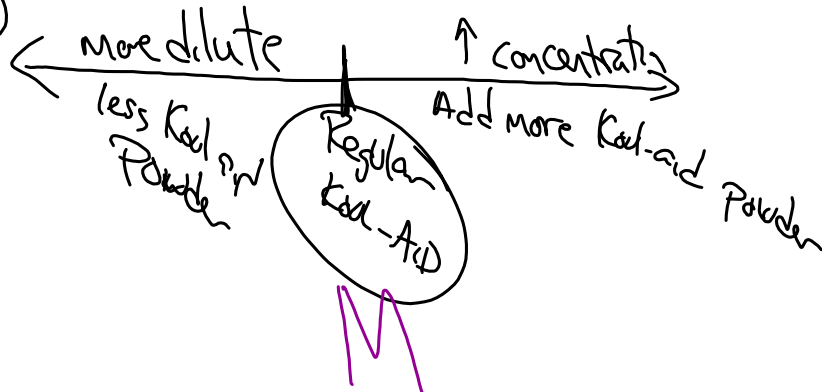
Kool-Aid

Sugar $(C_6H_{12}O_6)$

1 can ⇒ 8 gts. Given
538g → 2 gal

1 gallon = 3.78 l

Solution



Dec 14-9:41 AM

$R_{eq} = \frac{538g \text{ C}_6\text{H}_{12}\text{O}_6 \text{ solute}}{2 \text{ gal. solution}}$

$M = \frac{2.99 \text{ moles solute}}{7.56 \text{ l solution}}$

VODKA less ← Solute = sugar
 05 more ← Solvent = water

538g C ₆ H ₁₂ O ₆	1 mole C ₆ H ₁₂ O ₆	= 2.99 mole C ₆ H ₁₂ O ₆
	180 g C ₆ H ₁₂ O ₆	

2 gal	3.78 l	= 7.56 l solution
	1 gal	

Solution

Dec 14-9:49 AM

0.395M

make 100ml Kal-aid solution

0.395 moles	
l	

0.395 mole	0.0395 mole
1000ml	100ml

0.0395 mole	180 g	= 7.11 g Kal Aid
	1 mole	

Sugar Kal-aid Powder

Dec 14-9:59 AM