

3.74 $4 \text{ NH}_3 + 5 \text{ O}_2 \rightarrow 4 \text{ NO} + 6 \text{ H}_2\text{O}$

1.17 g NH_3 1.5 g 2.75 g 2.06 g 1.86 g

①

1.5 g NH_3	1 mole NH_3	5 mole O_2	30 g NO
	17 g NH_3	1 mole NH_3	1 mole NO

 = 2.65 g NO

②

2.75 g O_2	1 mole O_2	4 mole NO	30 g NO
	32 g O_2	5 mole O_2	1 mole NO

 = 2.06 g NO LR

③

2.75 g O_2	1 mole O_2	$6 \text{ mole H}_2\text{O}$	$18 \text{ g H}_2\text{O}$
	32 g O_2	5 mole O_2	$1 \text{ mole H}_2\text{O}$

 = $1.86 \text{ g H}_2\text{O}$ with LR

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①

2.75 g O_2	1 mole O_2	4 mole NH_3	17 g NH_3
	32 g O_2	5 mole O_2	1 mole NH_3

 = 1.17 g NH_3 used

have 1.5 g NH_3 - use 1.17 g NH_3 = left over 0.33 g NH_3

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Chap 4 - Solution chemistry

Water - Aqueous solution

Solute - gets dissolved

Solvent - does the dissolving

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Concentration of a solution
MOLARITY M

$$\frac{M}{1} = \frac{\text{Moles Solute}}{\text{l of Solvent}}$$

Sep 28-8:01 AM

Kool-Aid $\Rightarrow \approx$ Sugar

$C_6H_{12}O_6 = \underline{\underline{180g/mole}}$

$\frac{538g}{8gt}$ \leftarrow bottle

M? for req. strength Kool-Aid.

538g $C_6H_{12}O_6$	<u>1 mole $C_6H_{12}O_6$</u>	4gt	1gt	= 0.395M
8gt sugar	180g $C_6H_{12}O_6$	1gt	<u>3.7854g</u>	

L

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0.395 M , 100ml , — g KA
0.1l

0.395 Mole Sugar	180g Sugar	100ml	= 7.11g KA in 100ml
1000ml	1 Mole Sugar		

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Viscosity
transmittance of light
Color
taste

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