

Nama: Steven Setiawan Wibowo

NIM: 105210094

4. Pipet

$$n_{\text{HCl}} = 0,274 \text{ lb-mola}$$

$$n_{\text{N}_2} = 0,337 \text{ lb-mola}$$

$$n_{\text{O}_2} = 0,083 \text{ lb-mola}$$

$$P = 40 \text{ lb/in}^2$$

$$T = 30^\circ\text{C}$$

ditanya,

a. V

b. ρ (lb/cuft)

Jawab

$$n_{\text{total}} = 0,274 + 0,337 + 0,083$$

$$= 0,7 \text{ lb-mola}$$

$$\text{Volume set SC} = n_{\text{total}} \times 359$$

$$= 0,7 \times 359$$

$$= 251,3 \text{ cu ft}$$

$$\text{a. Volume set} = 251,3 \text{ cu ft} \times \frac{14,7 \times 303}{40 \times 273}$$

40 lb/in², 30°C

$$40 \times 273$$

$$= 102,501 \text{ cu ft}$$

$$\text{b. Density } (\rho) = \frac{1}{102,501} = 0,00975 \text{ lb per cu ft}$$