

Methanol-Ethanol Mixture

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Solution: The last drop will go into the vapor phase when the pressure has reached the curve calculated using Dalton's law.

$$P_{tot} = \frac{P_1^* P_2^*}{P_2^* - y_2 (P_2^* - P_1^*)}$$

$$P_{tot} = \frac{(58)(159)}{159 - 0.5(159 - 58)}$$

$$P_{tot} = 85 \text{ Torr}$$