

# question on solution thermodynamics

---

*Source:* <http://sci.tech-archive.net/Archive/sci.chem/2006-09/msg00214.html>

---

- *From:* [mrdarrett@xxxxxxxxxx](mailto:mrdarrett@xxxxxxxxxx)
  - *Date:* 16 Sep 2006 10:36:34 -0700
- 

If I have a vessel filled with a liquid: 0.019 mole fraction ethanol and 0.981 mole fraction water (1.9 mole % ethanol, 98.1 mole % water), thermodynamic tables tell me that at 95.5 degrees C, the vapor will be 17 mole % ethanol, 83 mole % water.

But what about if the temperature is not 95.5 degrees C?

Between room temperature (20 C, for instance) and 95.5 C, will the vapor in equilibrium with the previously mentioned liquid still have 17 mole % ethanol?

.