

4. If you had a solution that contained 5 molal KCl at a temperature of 20°C, would the solution be unsaturated, saturated, or supersaturated?

5. What is the molality of a saturated solution of ammonia at 50°C?

6. You have a solution that contains 43 g of an unknown compound dissolved in 100 g of H₂O at a temperature of 55°C. The unknown compound is either NaNO₃, KNO₃, KCl, or Na₂SO₄. Describe how you could use heating or cooling (to specific temperatures) and a solubility chart to identify the unknown compound.