



Figure 9.14 Phase diagram for the ternary system egg yolk lecithin-sodium cholate-water at 22°C. (Modified from Ref. 11, with permission from Plenum Press).

formation can be obtained from the multiple-phase regions of the diagram. Triangular plots of systems having more than three pure components are called pseudoternary diagrams. The propylene glycol-petrolatum-emulsifier system is an example of pseudoternary-phase behavior being used to solve a manufacturing problem. As shown in Figure 15, the base having the composition 7% propylene glycol, 88% white petrolatum, 5% glycerol monostearate separates into a petrolatum-rich phase and a propylene glycol-rich phase at 70°C. The physical stability of this base is completely dependent upon kinetic stabilization caused by the increase in viscosity of the vehicle upon solidification of the white petrolatum-glycerol monostearate (melting point, 60°C) mixture. Although the semisolid state appears