ABSTRACT. Given a nondegenerate minimal hypersurface Σ in a Riemannian manifold, we prove that, for all ε small enough there exists u_ε, a critical point of the Allen-Cahn energy $E_\varepsilon(u) = \varepsilon^2 \int |\nabla u|^2 + \int (1-u^2)^2$, whose nodal set converges to Σ as ε tends to 0. Moreover, if Σ is a volume nondegenerate constant mean curvature hypersurface, then the same conclusion holds with the function u_ε being a critical point of E_ε under some volume constraint.