Gallium-amine complexes were produced by reactions of gallium atoms and methylamines seeded in helium or argon carrier gases. The Ga-NH$_n$(CH$_3$)$_{3-n}$ complexes have adiabatic ionization potentials of 39330, 38790, and 38081 cm$^{-1}$ for n = 2, 1, and 0, respectively. The ZEKE spectrum of Ga-NH$_2$CH$_3$ exhibits 299 and 124 cm$^{-1}$ vibrations in the ionic state and a 93 cm$^{-1}$ vibration in the neutral state. In the case of Ga-NH(CH$_3$)$_2$, 864, 331, 206, and 132 cm$^{-1}$ vibrations were measured for the ion, and 177 and 128 cm$^{-1}$ vibrations for the neutral molecule. For Ga-N(CH$_3$)$_3$, the spectrum displays ionic vibrations of 785, 462, 188, and 111 cm$^{-1}$ and a neutral vibration of 133 cm$^{-1}$. Assignments of the observed vibrations will be discussed in comparison with theoretical calculations.