Astrochemical models of interstellar chemistry predict the formation of many complex molecules of prebiotic interest, including aminomethanol (HOCH$_2$NH$_2$). Aminomethanol has been proposed as the gas-phase interstellar precursor to glycine, the simplest amino acid, in star-forming regions. Aminomethanol is therefore a potential tracer of prebiotic interstellar chemistry. However, the laboratory spectrum of aminomethanol remains elusive because it is unstable under typical laboratory conditions. A new (sub)millimeter spectrometer is being used to study the reaction between O($^1$D) and methylamine to form aminomethanol. O($^1$D) is produced via laser photolysis of ozone in a fused silica tube, where it reacts with methylamine before a supersonic expansion. The insertion reaction of O($^1$D) with methylamine to form aminomethanol is highly exothermic, leading to a mixture of additional reaction products that have been identified through their rotational spectroscopic signatures. Here we will present the experimental setup, observed reaction products, and initial results towards the characterization of aminomethanol. Comparisons will also be made with observational spectra from several star-forming regions.