The formation of interstellar methanol and its related chemistry have been topics of much discussion and debate within the astrochemical community. This discussion has now also been extended to include methoxy (CH$_3$O), a closely-related radical, after its initial discovery within a prestellar core was reported by Cernicharo and coworkers (2012). Using a supersonic expansion of methanol diluted in argon and coupled with a plasma discharge, we have collected the rotational spectrum of methoxy at submillimeter wavelengths. By coupling these results with data from a number of other literature reports, we have prepared an updated line catalog that will greatly enhance opportunities to search for interstellar methoxy. We will present these results in the context of related astrochemical processes.