

DEET is most commonly used as an insect repellent for humans and animals, however it is also an effective solvent that may dissolve some synthetic fabrics and remove permanent ink from whiteboards. To make DEET we first reacted m-toulic acid with thionyl chloride to make an acid chloride. Thionyl chloride is commonly used to turn carboxylic acids into an acid chloride. Then by reacting the freshly created acid chloride with diethylamine DEET was synthesized. These reactions were made more green by replacing the solvent ethyl ether with cyclopentyl methyl ether during washing and extracting steps. The synthesis was also done replacing thionyl chloride with oxalyl chloride. By making these reactions more green it may become cheaper and easier for companies to make DEET which would help to reduce cost for consumers.