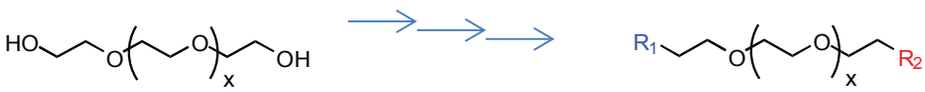
The chemical modification of a PEG diol to a purposely targeted dervative is a multi-step process.




Each step requires optimization in order to maintain yield and purity of final product. Polypure places an initial effort in fractionating a mixture of PEG diol to monodisperse quality, which makes chemical processing more controlled and reproducible. For demonstation purpose the heterofunctional PEG acid (bottom) is analyzed by LC-MS. An initial purification shows remaining starting material PEG-28 and also a few other impurities. Considering the broad range of peaks and signals obtained from analysis of a polydisperse PEG 1500, the likelihood of detecting similar impurities in a corresponding reaction scheme is small.