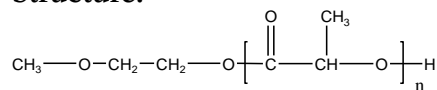


Sample Name: Polylactide monomethoxy terminated (L form)

Sample #: P7163-LA (L-Form)

Structure:

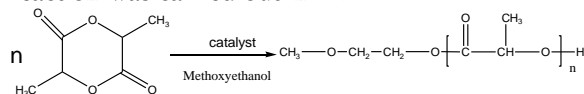


Composition:

| $M_n \times 10^3$ | PDI |
|------------------------------|-----|
| 0.55 | 1.3 |
| T_g ($^{\circ}\text{C}$) | -02 |

Synthesis Procedure:

The polymerization of 3, 6-dimethyl-1,4-dioxane-2,5-dione was initiated with an catalyst and the reaction was carried out in THF.



Characterization:

The molecular weight is calculated from NMR by comparing methane proton of lactide at 5.1ppm and methoxyethanol proton at 3.4 and polydispersity index (PDI) is obtained by size exclusion chromatography.

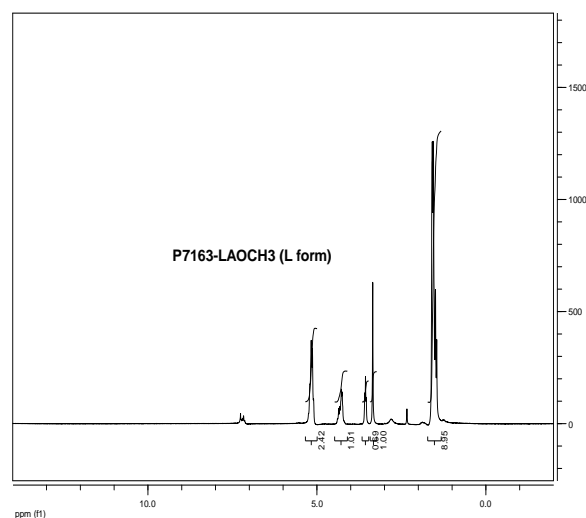
Thermal analysis:

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of $10^{\circ}\text{C}/\text{min}$. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Solubility:

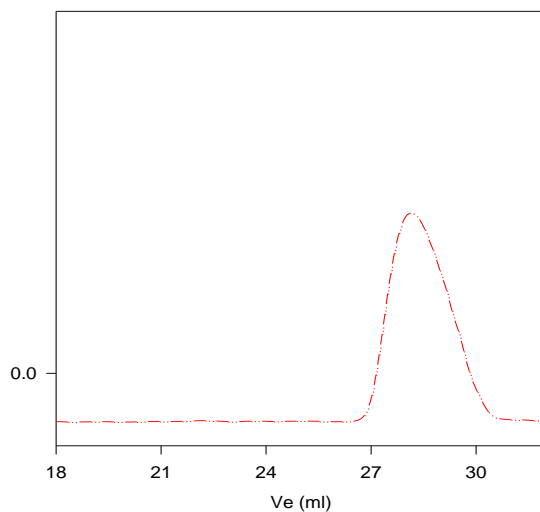
Polylactide is soluble in toluene, THF, CHCl_3 and CH_2Cl_2 . The polymer is insoluble in methanol, hexane and ether.

NMR of the homopolymer:



SEC of Homopolymer:

P7163-LAOCH3 (L form)



Size exclusion chromatography result:

--- $M_n=550$, $M_w=710$ $PI=1.3$ (M_n calculated from NMR)

DSC thermogram for the sample

