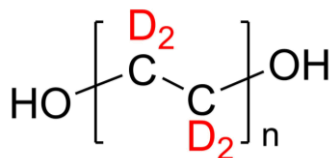


**Product Name:** Deuterated Poly(ethylene-d4),  $\alpha,\omega$ -bis(hydroxy)-terminated

**Product #:** P43364-dPE2OH

**Structure:**



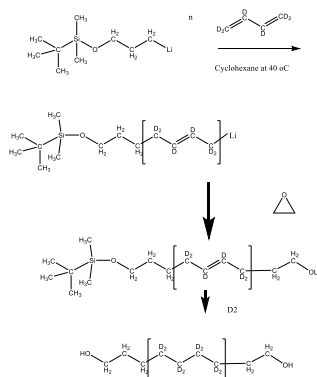
**Composition:**

Mn x 10 <sup>3</sup>	PDI
5.0	1.01

Appearance:	solid / powder
-------------	----------------

**Synthesis route:**

The following reaction scheme shows how the product was prepared:



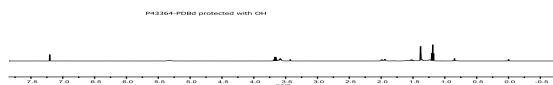
**Characterization:**

The product was characterized by size exclusion chromatography (SEC) and <sup>1</sup>H NMR data analysis.

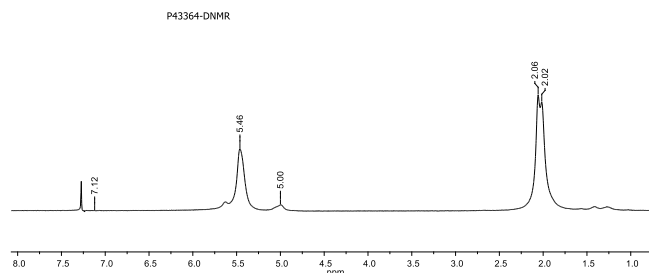
**Solubility:**

Deuterated Polyethylene is soluble in toluene and hot xylene. Low molecular weight polymer is also soluble in tetrahydrofuran (THF).

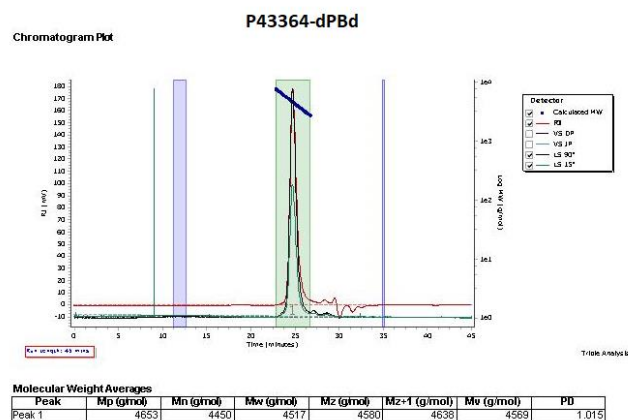
**<sup>1</sup>H-NMR spectrum of tBuDimethylSiloxy-PdBd-OH (end-group protected polybutadiene, intermediate product):**



**D-NMR spectrum of OH-PBd-OH (bis-hydroxy-terminated polybutadiene, intermediate product):**



**SEC chromatogram of bis-hydroxy-terminated polybutadiene:**



P43364-Bd2OH converted to Poly ethylene 2OH Lot# P43364 dPE-2OH

**DSC thermogram of the product:**

