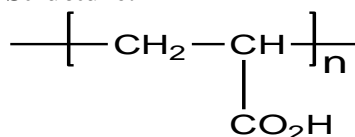


Sample Name: Poly(Acrylic acid)

Sample #: P3622-AA

Structure:

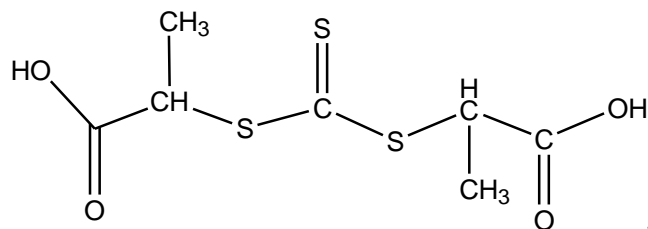


Composition:

$M_n \times 10^3$	M_w/M_n (PDI)
1.3	1.25

Synthesis Procedure:

Poly (acrylic acid) is synthesized by RAFT polymerization of acrylic acid using 2,2'-azobis isobutyrate (CAS 2589-57-3) as initiator and xanthate as chain transfer agent:



Characterization:

Polyacrylic acid has analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI) using water containing 0.1M NaNO_3 and 0.01M NaH_2PO_4 and 4 Vol% acetonitrile as eluent. The molecular weigh can also be verified after converting poly acrylic acid to poly n-butyl acrylate by transesterification process and anal sizing the polymers by SEC in organic phase

Solubility: Polymer is soluble in water.

SEC was carried out to convert PAA into Poly n-Butylacrylate to determine molecular weight of the poly acrylic acid

SEC profile of the polymer:

