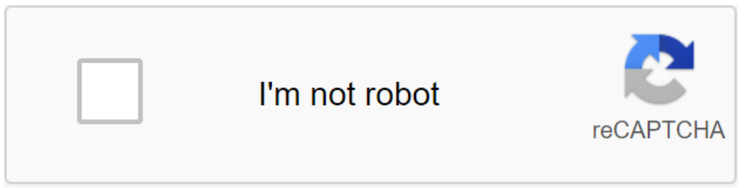

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Poly(ethylene glycol) methyl ether methacrylate solubility

Work off campus? Learn about our remote access variants of Copolymers metacry acid (MAA) and poly (ethylene glycol) methyl ester metacrilate (PEGMA) have been prepared and their cloud points in aqueous solution have been studied as a function of ratio of comomers, pH solution, and the presence of hydrophobic comnomers. In acidic conditions, cloud cover falls below 0 degrees Celsius for copolimers with ether content from 25% to 60% due to the formation of hydrophobic etheric-acid complexes. The cloud point also decreases with the pH of the solution. For the equivalent ratio of ether and acid, the cloud point decreases as the length of the PEG chain decreases due to the presence of more hydrophobic methyl and metacrylic groups. Similarly, the point of the cloud decreases when hydrophobic comoners such as bottlel, lauryl or glycydyll-metacrilates are turned on. J Polym Sci Part A: Polym Chem 43: 6095-6104, 2005 The full text of this article is posted on iucr.org unavailable due to technical difficulties. If you are not the author of this article and want to reproduce the material from it in a non-RSC publication, you must formally request permission through the Copyright Resolution Center. For more information, go to our instructions on how to use the Copyright Center page. Authors contributing to THE publication of the RSC (journal articles, books, or chapters of books) should not formally request permission to reproduce the materials contained in this article, provided that the correct recognition is given with the material reproduced. The material reproduced should be attributed as follows: if the material was adapted instead of a playback from the original edition of THE RSC Reproduced from can be replaced by Adapted from. In all cases Ref. XX is the XXth link in the link list. If you are the author of this article, you do not need to formally request permission to reproduce the numbers, diagrams, etc. contained in this article in third-party publications or in the dissertation or dissertation, provided that the correct recognition is given with the material reproduced. The material you play should be as follows: if you are the author of this article, you still need permission to reproduce the entire article in a third-party publication, except to reproduce the entire article in your dissertation or thesis. Information about reproducing materials from RSC articles with different licenses is available on our Resolution Requests page. Peter J. Roth, Florian D. Jochuma and Patrick Theato'abc Author of Accessories - Relevant authors of the Institute of Organic Chemistry, University of Mainz, Duesbergweg 10-14, Mainz, Germany b World Class University (WCU) Chemical Convergence Program for Energy and Environment (C2E2), School of Chemical and Biological Engineering, College Seoul National University (SNU), Seoul, Korea with the Department of Materials Science and Engineering, University of Sheffield, Sheffield, UK Email: rothpe@uni-mainz.de, theato@uni-mainz.de Polyolitho (ethylene glycol) methyl metacrylate ester (POEGMA) is shown to possess insoluble soluble transitions (UCST type of phase) in a wide variety of alyphasity. Samples of different molecular scales ranging from 5 kg of maul to 23 kg of maul No.1, prepared by the RAFT process and including different finite groups at each end, were analyzed using cloud current measurements. The transitions were abrupt and completely reversible. IT has been found that UCST increases with increasing molecular weight. Hydrophobic (alkyle chains) end groups have been found to reduce critical temperature in isopropanol, while rigid aromatic end groups have increased the temperature of the transition. In the thorn mixture of isopropanol/chloroform/POEGMA, UCST decreased with an increase in chloroform concentrations, with 10 vol% of chloroform accounting for a 30 degree Celsius drop. In izopropanol/hexane/POEGMA mixtures, cloud cover increased significantly only at hexagonal oil concentrations above 30 vol, where the temperature of the transition was detected to increase by 2 degrees Celsius. Adding water to isopropanol solutions had a strong effect, with 1 vol% of water causing a drop in the temperature of the transition by 12.5 degrees Celsius. As the length of the solvent chain increased, the point of the cloud increased, while the branches of the hydrocarbon chains lowered the point of the cloud. For example, samples of 23 kg of mole-1POEGMA were found to have cloud points of 22.0 degrees Celsius in ethanol, 35.7 degrees Celsius in isopentanol and 75.4 degrees Celsius in the dodecanol. You have access to this article Please wait until we download your content... Something went wrong. Try again? Back to the navigation tab Additional PDF information (638K) Soft Matter, 2011.7, 2484-2492 P. J. Roth, F. D. Jochum and P. Theato, Soft Matter, 2011, 7, 2484 If you are not the author of this article and you want to reproduce the material from it in the publication of a third party, are not THE RSC, you must formally request permission through the Copyright Center. For more information, go to our instructions on how to use the Copyright Center page. 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inhibitor 26915-72-0 100ml $45.6 2020-08-18 Buy Sigma-Aldrich 447935 Poly (ethylene glycol) methyl ether metacrylate Medium Mn 300, contains 100 ppm MEH, 300 ppm BHT as inhibitor 26915-72-0 500ml $128 2020-08-18 Buy Alpha Esar 0465 Polyethylene glycol methyl ether methcrylate , M.W. 13,000 26915-72-0 1g $75.3 2020-06-24 Buy Alpha Aesar 046513 Polyethylene glycol methyl ether metacrylate, MV 13,000 26915-72-0 5g $282 2020-06-24 Buy Sigma-Aldrich 447943 Poly (ethylene glycol) methyl ether metacrylate medium Mn 500, contains 100 ppm MEH as an inhibitor, 200 ppm BHT as an inhibitor 26915-72-0 500ml $128 2020-08-18 Buy TOSILMETYL ISOCYANIDE 2.4-PENTANEDIONE , SILVER BENSIL ISOCYANIDE COBALT ETHYLENE CHLORID TRIC (2,2,6,6-TETRAMETHYL-3 ,5-HEPTANEDIANATO)EUROPIUM (III) N-BUTILISOCYANIDE TERT-BUTYL ISOCYANIDE TRIS (2,2,6,6-TETRAMETHYL-3.5-HEPTANEDIONATO)DYSPROSIUM (III) Kuprich acetylacetonate ethycaticocyanoate SALCOMIN TRIS (2.4-pentanedIONATO)chroMiuM (III) PHENYLESELENOL FerRIC AceTYLCASTONATE 1.1.3 3-TETRAMEMETYLBUTYL ISOCYANID DICHLORO (ETILENIAMINE) PLATINUM (II) COBALT (II) ACETYLACET POLY (ETHRILLYCOL) % SOLN В ВОДА averagemnca.1.100 Поли (окси-1 .2-ethanediyl), .alpha.-(2-метил-1-оxo-2-propenyl)-.omega.-methoxy- Полиэтиленгликольметилетитермонокрилат МЕТХОКСИ ПОЛИЭТИЛЕНГЛИКОЛ МЕТКРИЛАТ ПОЛИЭТИЛЕНЭТИЛЕНгликоль метиловый эфир метакрилат, М.В. 1000 Полиэтиленгликоль монометил эфир метакрилат Поли (этиленгликоль) метил эфир метакрилат, метокси PEG метакрилат, метоксилат, метокси поли (этиленгликоль) монометакрилат, Поли (этиленгликоль) монометил эфир монометакрилат Метокси ПЕГ метакрилат Поли (этиленгликоль) монометил эфир монометакрилат полиэтиленгликоль метилэфират, М.В. 13000 MPEGn-Метакрилат 2K, 5K , 10K, 20K полиэтиленгликоль метиловый эфир метакрилат , MV 5000 MPEGn-MA 2K, 5K, 10K, 20K Poly (oxy-1,2-etoneyil), a-(2-methyl-1-oxo-2-propen-1-yl)-w-metoxy-mpeg-metacrylate 2-2-2-(2-metoxyethoxy)ethosytoxy 2-methyl-methyep-2-enozo Polyethylene glycolethylethymemo mPEG-MeAc,MPEG-MA METHOXY POLYETHYLENGLICOL (350) MONOMETHACRYLATE METHOXY POLICE (550) MONO METHACRYLATE POLY (ETHYLENEGLICOL) METHYL ETHER METHACRYLAT POLY (ETHYLENEGLYCOL) (N) MONOMETYL ETHER MONOMETACRILAT POLY (ETHENEGLICOL) (1000) MONOMETACRYLAT2-ETENAE Alpha.-(2-methyl-1-oxo-2-propenil)-omega.-methoxy-Poly (oxy-1 alpha- (2-methyl-1-oxo-2-Per)-omega-metoxy-poly (oxy-2-etonediyl) Metoxypoliethylene glycolomonethrylat POLY (ETHYLENE GLYCOL) METHYL ETHER MET-ACRILAT, AVERAGE MN CA. 300 POLY (ETHYLENGLICOL) METHYL ETHER MET-ACRILAT , AVERAGE MN CA. 1100 alpha (2-Methyl-1-oxo-2-peninyl)-omega-metoxypolis (oxy-1 ,2-etaminedil) metacrylic acid ester with polyethylene glycol methyl ether RMA 150M RMA 300M RMA 450M Rohamere 6850O Sartomer SR 550 SR 550 UA 4100 Poly (ethylene glycol) Methyl Ether Metacrylic Medium Mn 300, contains 100 ppM MEH as an inhibitor, 300 ppM BHT as a Poly inhibitor (ethylene glycol) Methyl ether metacrylate medium Mn 500 , contains 100 ppM MEH as an inhibitor, 200 ppM BHT as a Poly inhibitor (ethylene glycol) Methyl ether metacrylate medium Mn 950 , contains 100 ppM MEH as an inhibitor, 300 ppM BHT as a Poly inhibitor (ethylene glycol) Methyl ether methacrylate solution average Mn 2,000, 50 wt. % in H2O polyethylene glycol monometyl ether metacrylate (n'approx. 9) (stabilized with MEH' Poly (ethylene glycol) methyl ether metacrylate poly solution (ETHYLENE GLYCOL) METHYL ETHER METH- ACRYLATE , AVERAGE MN CA. 475 Poly (oxy-1,2-etinedyl), alpha (2-methyl-1-oxo-2-propen-1-yl)-omega-metoxy-mPEG-MA (mPEG-metacrylate) Poly (oxy-1,2-etendyl H-(2-methyl-1-oxo-2-propen-1-il)-I-metoxy-poly (ethylene glycol) methyl ether metacrylate medium Mn 1500, contains Poly (ethylene glycol) methyl ether metacrylate medium Mn 4000 , содержит 26915-72-0 C2H4OnC5H8O2 H2CCCH3CO2CH2CH2OnCH3 PEG Polydispersed PEG Полимерная наука Монофункциональный PEG BiomaterialsPolymer Science Science Science Science poly(ethylene glycol) methyl ether methacrylate water solubility