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(54) Title: LOW VOC POLYOL ALKYD DISPERSION AND POLYURETHANE DISPERSIONS

(57) Abstract: Disclosed is a method for the preparation of stable, fine particle size and low volatile organic compound (VOC) content, aqueous dispersions of polymer. Low VOC waterborne polyol alkyd dispersions (PADs) and alkyd polyurethane dispersions (PUDs) can be obtained by this method. The alkyd polyurethane dispersions (PUDs) are obtained from polyol alkyd dispersions (PADs) which are polyethylene glycol (PEG) modified and solvent free. Polyurethane dispersions (PUDs), which are stable and have low VOC can be obtained by the reaction of a di-isocyanate (IPDI) with the alkyd dispersion and applied in one pack (1K) coating system. Waterborne polyol alkyd dispersion (PADs) can also be applied in two pack (2K) coating system by reacting with polyisocyanate or other crosslinkers to give low VOC waterborne coating systems. Coatings comprising polyurethane dispersions, having low VOC content, may be used on the surface of objects made of metal, wood, glass or plastic.