



P-13-398

**STUDY OF PLASTICIZERS TO THE PVC IN REPLACEMENT OF DIOCTYLPHTHALATE (DOP)**

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The physical characteristics of the PVC can be changed by adding different additives during processing. A specific type of poly(vinyl chloride) (PVC) obtained by emulsion method is widely used in the manufacture of shoes and toys. One of the most used additives in this emulsion is the plasticizer which promotes flexibility to the material. This work aims to study the influence of different plasticizers (triacetin, polycaprolactone, dioctyl adipate, polyester polyol, and lestarflex (polymeric plasticizer polyester)) in the properties of the PVC in order to replace the DOP which is not currently accepted for use on products intended for children in the European Community. The efficiency of these plasticizers was evaluated by small-angle X-ray scattering (SAXS). The mechanical properties (tensile and tear strength) were also evaluated, before and after accelerated aging. Preliminary results indicated that the DOP can be replaced by the lestarflex, polyester polyol or DOA without affecting the properties of the final material, even after aging.