produced using an alcohol which is industrially available in high volumes. Esters of isononyl alcohol can accordingly be used in applications hitherto reserved to the costlier esters of C10 alcohols.

The use of diisononyl terephthalate (DINT) as plasticizer for thermoplastic applications has the additional advantage, over other plasticizers known from the prior art, that the plastics articles obtained, especially PVC articles such as, for example, cable coating and cable sheathing, have a particularly low glass transition temperature and thus exhibit good low-temperature flexibilization.

A further advantage is that the high permanence of terephthalic esters according to the present invention will reduce the plasticizer content of indoor air and house dust significantly even at elevated temperatures. This is very important for floor coverings and PVC membranes (e.g. roofing foils and roofing webs) in particular.

The present invention accordingly provides for the use of diisononyl terephthalate (DINT) as plasticizer for enhancing the low-temperature flexibilization and/or for enhancing the permanence in polymer compositions for thermoplastic applications.

Thermoplastic applications are any applications where the shaping step is carried out at the processing temperature (130 to 280°C, preferably 150 to 250°C). Examples of thermoplastic methods of processing are calendering, extrusion, injection moulding, slush moulding, etc. In all cases, either a powder mixture or a pelletized material is brought into the desired shape by processing in the melt. Plasticization then occurs at the processing temperature whereby the molten primary particles become finely dispersed and a substantially homogeneous mass forms on cooling.

Summary

In one aspect, there is provided the use of diisononyl terephthalate (DINT) as plasticizer for enhancing permanence in polymer compositions comprising polyvinyl chloride (PVC) for thermoplastic applications.

Detailed Description

In a preferred embodiment, diisononyl terephthalate (DINT) is used as plasticizer in compositions for floor coverings, profiles, roofing foils or roofing webs, cable insulation and cable sheathing. DINT can further be used with advantage in compositions for