Claims

1. Use of a polyester plasticizer including regularly alternating units of:

a. a glycol or diol; and

b. a dibasic acid,

wherein the polyester plasticizer is end capped with dual benzoic acid esters or hybrid benzoate or acetate esters,

wherein the polyester plasticizer has a Mw of at least about 500 to about 5000, and

wherein the polyester plasticizer is used in a polysulphide sealant, a polyvinyl chloride plastisol, a vinyl label film, a polyvinyl acetate adhesive or an ethylene vinyl acetate adhesive.

2. The use as claimed in claim 1, wherein the plasticizer includes:

a propylene glycol succinate end-capped with benzoic acid esters;

a propylene glycol adipate end-capped with benzoic acid esters;

a propylene glycol succinate end-capped with hybrid benzoic acid esters and acetate esters, or

a propylene glycol adipate end-capped with hybrid benzoic acid esters and acetate esters.

3. The use as claimed in claim 1 or claim 2, wherein the polysulfide sealant comprises an A-side and a B-side, wherein the A-side contains a polysulfide polymer and a phthalate plasticizer and the B-side comprises a catalyst and the polyester plasticizer.

4. The use as claimed in claim 1, wherein the diol is selected from the group consisting of 1,3-butane diol, 1,4-butane diol, 1,3-propane diol, and mixtures thereof, and/or wherein the dibasic acid is selected from the group consisting of adipic acid, succinic acid, azelaic acid, glutaric acid and sebacic acid.

5. The use as claimed in claim 1 or claim 2, to prepare a polymeric composition, wherein the polymeric composition is a polysulfide sealant, a waterborne or non-waterborne adhesive, polyvinyl label film, packaging glue, adhesive assembly, food packaging, wood glue, construction adhesive, transportation product assembly, electronic product assembly, electronic

packaging, pressure sensitive adhesive, caulk, vinyl flooring, automotive plastisol or melt compounded vinyl.

6. The use as claimed in claim 5, wherein the polyvinyl label film is characterised by a surface energy (dynes/cm) over time of greater than about 34 and wherein the surface energy over time is retained under high temperature and humidity conditions.

7. A composition including:

1)

a) polysulphide sealant; or

b) polyvinyl chloride plastisol; or

c) vinyl label film; or

d) polyvinyl acetate adhesive; or

e) ethylene vinyl acetate adhesive, and

2) a polyester plasticizer including:

a. a glycol or diol; and

b. a dibasic acid,

wherein the polyester plasticizer is end capped with dual benzoic acid esters or hybrid benzoate or acetate esters,

wherein the polyester plasticizer has a Mw of at least about 500 to about 5000.

8. The composition as claimed in claim 7, wherein the polyester plasticizer includes:

a propylene glycol succinate end-capped with benzoic acid esters;

a propylene glycol adipate end-capped with benzoic acid esters;

a propylene glycol succinate end-capped with hybrid benzoic acid esters and acetate esters, or

a propylene glycol adipate end-capped with hybrid benzoic acid esters and acetate esters.

9. The composition as claimed in claim 7 or claim 8 wherein the polysulfide sealant comprises an A-side and a B-side, wherein the A-side contains a polysulfide polymer and a phthalate plasticizer and the B-side comprises a catalyst and the polyester plasticizer.

10. The vinyl label film-forming composition as claimed in claim 7 or claim 8, wherein the composition includes:

a. polyvinyl chloride;
b. a filler; and
c. a heat stabilizer.

11. The vinyl label as claimed in claim 10, wherein the film is characterised by a surface energy (dynes/cm) over time of greater than about 34 and wherein the surface energy over time is retained under high temperature and humidity conditions.

12. The composition as claimed in claim 7 or claim 8, wherein the diol is selected from the group consisting of 1,3-butane diol, 1,4-butane diol, 1,3-propane diol, and mixtures thereof, wherein the dibasic acid is selected from the group consisting of adipic acid, succinic acid, azelaic acid, glutaric acid and sebacic acid.

13. A polymeric composition comprising a polyester plasticizer including:

a. a glycol or diol; and
b. a dibasic acid,

wherein the plasticizer:

i) is end capped with dual benzoic acid esters or hybrid benzoate or acetate esters; and
ii) has a Mw of at least about 500 to about 5000

and wherein the polymeric composition is:

a) a waterborne or non-waterborne adhesive; or
b) a packaging glue;
c) adhesive assembly;
d) food packaging;

e) wood glue;
f) construction adhesive;
g) transportation product assembly;
h) electronic product assembly;
i) electronic packaging;
j) pressure sensitive adhesive;
k) caulk;
l) vinyl flooring;
m) an automotive plastisol; or
n) a melt compounded vinyl.

14. The polymeric composition as claimed in claim 13, wherein the polyester plasticizer includes:

a propylene glycol succinate end-capped with benzoic acid esters;

a propylene glycol adipate end-capped with benzoic acid esters;

a propylene glycol succinate end-capped with hybrid benzoic acid esters and acetate esters, or

a propylene glycol adipate end-capped with hybrid benzoic acid esters and acetate esters.