Claims

1. A low VOC coalescent triblend additive for use in a polymeric coating composition, comprising:
   a. diethylene glycol dibenzoate present in amounts of at least about 60 wt.%,
   b. dipropylene glycol dibenzoate present in amounts of at least about 15 wt.%, and
   c. 1, 2- propylene glycol dibenzoate present in amounts of at least about 20 wt.%

   based upon the total weight of the triblend composition.

2. The triblend addictive of claim 1, wherein the triblend comprises 80 wt. % of a mixture of diethylene glycol dibenzoate and dipropylene glycol dibenzoate, wherein the ratio of DEGDB to DPGDB is about 4:1, and 20 wt. % of 1,2-propylene glycol dibenzoate, based upon the total weight of the plasticizer triblend.

3. A low VOC coating composition, comprising:
a. an aqueous polymeric emulsion; and
b. a non-phthalate, low VOC coalescent comprising a triblend of diethylene glycol dibenzoate present in amounts of at least 60wt.%, dipropylene glycol dibenzoate present in amounts of at least 15 wt. %, and 1,2-propylene glycol dibenzoate present in amounts of at least 20 wt.%, wherein the coalescent has low volatility and achieves equivalent or better wet edge/open time and gloss ratings, equivalent or better scrub resistance and block resistance over traditional low VOC coalescents, and
wherein the viscosity of the coating composition remains stable after three freeze/thaw cycles.

4. The low VOC coating composition of claim 3,
wherein the polymeric emulsion is a latex, vinyl acrylic, acrylic semigloss or an acrylic copolymer gloss emulsion.

5. The low VOC coating composition of claim 3,
wherein the aqueous polymeric emulsion comprises vinyl acetate, polyvinyl acetate, ethylene vinyl acetate, and copolymers thereof; vinylidene chloride; diethyl fumarate; diethyl maleate; polyvinyl butyral; polyurethanes and copolymers thereof; polysulfides; cellulose nitrate; polyalkyl methacrylates, such as methyl methacrylate, ethyl methacrylate , butyl methacrylate, cyclohexyl methacrylate, or allyl methacrylate; various aromatic methacrylates, such as benzyl methacrylate; various alkyl acrylates, such as methyl acrylate, ethyl acrylate, butyl acrylate, or 2-ethylhexyl acrylate; various acrylic acids, such as methacrylic aid; vinyl acrylics; stryrenated acrylics; acrylic-epoxy hybrids; epoxies, phenol-formaldehyde polymers; melamines; or mixtures thereof.

6. A low VOC coating composition, comprising:
   a. a polymeric emulsion comprising latex, a vinyl acrylic or an acrylic copolymer; and
   b. a non-phthalate coalescent triblend comprising;
      i. 80 wt.% of a mixture of diethylene glycol dibenzoate and dipropylene glycol dibenzoate, wherein of the ratio of DEGDB to DPGDB is about 4;1; and
      ii. 20 wt. % of 1,2-propylene glycol dibenzoate,
      based upon the total weight of the triblend.

Claims

1. A low VOC coalescent triblend additive for use in a polymeric coating composition, comprising:
   a. diethylene glycol dibenzoate present in amounts of at least 60 wt.%,
   b. dipropylene glycol dibenzoate present in amounts of at least 15 wt.%, and
   c. 1, 2- propylene glycol dibenzoate present in amounts of at least 20 wt.%

   based upon the total weight of the triblend composition.

2. The triblend addictive of claim 1, wherein the triblend comprises 80 wt. % of a mixture of diethylene glycol dibenzoate and dipropylene glycol dibenzoate, wherein the ratio of DEGDB to DPGDB is 4:1, and 20 wt. % of 1,2-propylene glycol dibenzoate, based upon the total weight of the plasticizer triblend.

3. A low VOC coating composition, comprising:

a. an aqueous polymeric emulsion; and

b. a non-phthalate, low VOC coalescent comprising a triblend of diethylene glycol dibenzoate present in amounts of at least 60wt.%, dipropylene glycol dibenzoate present in amounts of at least 15 wt. %, and 1,2-propylene glycol dibenzoate present in amounts of at least 20 wt.%, wherein the coalescent has low volatility and achieves equivalent or better wet edge/open time and gloss ratings, equivalent or better scrub resistance and block resistance over traditional low VOC coalescents, and
wherein the viscosity of the coating composition remains stable after three freeze/thaw cycles.

4. The low VOC coating composition of claim 3,
wherein the polymeric emulsion is a latex, vinyl acrylic, acrylic semigloss or an acrylic copolymer gloss emulsion.

5. The low VOC coating composition of claim 3,
wherein the aqueous polymeric emulsion comprises vinyl acetate, polyvinyl acetate, ethylene vinyl acetate, and copolymers thereof; vinylidene chloride; diethyl fumarate; diethyl maleate; polyvinyl butyral; polyurethanes and copolymers thereof; polysulfides; cellulose nitrate; polyalkyl methacrylates, such as methyl methacrylate, ethyl methacrylate , butyl methacrylate, cyclohexyl methacrylate, or allyl methacrylate; various aromatic methacrylates, such as benzyl methacrylate; various alkyl acrylates, such as methyl acrylate, ethyl acrylate, butyl acrylate, or 2-ethylhexyl acrylate; various acrylic acids, such as methacrylic aid; vinyl acrylics; stryrenated acrylics; acrylic-epoxy hybrids; epoxies, phenol-formaldehyde polymers; melamines; or mixtures thereof.

6. A low VOC coating composition, comprising:
   a. a polymeric emulsion comprising latex, a vinyl acrylic or an acrylic copolymer; and
   b. a non-phthalate coalescent triblend comprising;
      i. 80 wt.% of a mixture of diethylene glycol dibenzoate and dipropylene glycol dibenzoate, wherein of the ratio of DEGDB to DPGDB is 4;1; and
      ii. 20 wt. % of 1,2-propylene glycol dibenzoate,
      based upon the total weight of the triblend.