

pared as a mixture and the mixture applied to the substrate.

41. The method of claim 39 wherein the polymerization initiator is selected from the group consisting of an amine-peroxide catalyst, an alkali metal salt of a sulfinate and a derivative of camphorquinone.

42. The method of claim 39 wherein the conditions of polymerization are selected from the group consisting of heating and illumination with visible or ultraviolet light.

43. An article of manufacture comprising

(1) a first container containing a hydrophilic fluid crosslinking adhesive composition comprising

(a) reaction products of a dianhydride with a hydrophilic polymerizable monomer compound containing a polymerizable moiety and a reactive group selected from the group consisting of a hydroxyl group, a primary amino group and a secondary amino group; and

(b) a reactive reagent selected from the group consisting of compounds containing a reactive group selected from the group consisting of a hydroxyl group, a primary amino group and a secondary amino group; and also containing a functional group selected from the group consisting of a cophotoinitiator functionality, a polymerization accelerator, and a polymerization stabilizer functionality, wherein the reaction products have similar aqueous solubility and surface activity characteristics; and

(2) a second container containing a polymerization initiator.

44. The article of manufacture of claim 43 wherein there are from about 1.5 to less than about 2 moles of the hydrophilic polymerizable monomer compound of subpart (a) per mole of dianhydride.

45. The article of manufacture of claim 43 wherein the first container is air-permeable.

46. The article of manufacture of claim 43 wherein the first container also contains a polymerization inhibitor.

47. The article of manufacture of claim 46 wherein the polymerization inhibitor contains an aromatic, sterically-hindered hydroxyl group.

48. The article of manufacture of claim 43 wherein the hydrophilic fluid adhesive composition is a dental adhesive.

49. The article of manufacture of claim 48 wherein the dental adhesive also contains medicaments.

50. The article of manufacture of claim 43 wherein the hydrophilic fluid adhesive composition is an industrial adhesive.

51. A hydrophilic fluid crosslinking adhesive composition produced by the process of reacting

(a) a dianhydride with

(b) a hydrophilic polymerizable monomer compound containing a polymerizable moiety and a reactive

group selected from the group consisting of a hydroxyl group, a primary amino group and a secondary amino group; and with

(c) a reactive reagent selected from the group consisting of compounds containing a reactive group selected from the group consisting of a hydroxyl group, a primary amino group and a secondary amino group; and also containing a functional group selected from the group consisting of a cophotoinitiator functionality, a polymerization accelerator, and a polymerization stabilizer functionality; and

(d) water,

the reaction catalyzed by heating or by a catalyst selected from the group consisting of an amine-containing catalyst, triphenyl antimony, triphenyl phosphine and mixtures thereof, wherein the reaction products have similar aqueous solubility and surface activity characteristics.

52. A hydrophilic fluid crosslinking adhesive composition produced by the process of claim 51 wherein there are from about 1.5 to less than about 2 moles of the hydrophilic polymerizable monomer compound of subpart (b) per mole of dianhydride.

53. The composition of claim 7 wherein the polymerizable moiety is a methacrylate, an acrylate or a vinyl moiety.

54. A composition as in claim 52 wherein there are from about 1.55 to about 1.99 moles of the compounds of subpart (b), and from about 0.01 to about 0.45 moles of the compounds of subpart (c), per mole of the compounds of subpart (a).

55. A composition as in claim 1 wherein the reactive reagent of subpart (c) is selected from the group consisting of 3,5-di-tert-butyl-4-hydroxybenzyl alcohol, mono-tert-butylhydroquinone and hydroquinone.

56. A composition as in claim 1 wherein the hydrophilic polymerizable monomer compound of subpart (b) is polyethyleneglycol monomethacrylate.

57. A hydrophilic fluid crosslinking adhesive composition comprising water and reaction products of:

(a) a dianhydride with

(b) a hydrophilic polymerizable monomer compound containing a polymerizable moiety and a reactive group selected from the group consisting of a hydroxyl group, a primary amino group and a secondary amino group; and also a compound containing a functional group selected from the group consisting of a cophotoinitiator functionality, a polymerization accelerator functionality, and a polymerization stabilizer functionality,

wherein the compounds of subparts (a) and (b) are present in the composition in molar ratios of about 1:1.55-1.99, and wherein the reaction products have similar aqueous solubility and surface activity characteristics.

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