What is claimed is:

1. An actinically crosslinkable prepolymer, comprising: in the branched copolymer chains of the prepolymer, (1) crosslinking polysiloxane polymeric units derived from at least one polysiloxane-containing crosslinker; (2) hydrophilic polymeric units derived from one or more hydrophilic vinylic monomers; (3) UV-absorbing polymeric units, latent UV-absorbing polymeric units, or dual photo-functional polymeric units, wherein the UV-absorbing polymeric units are derived from a polymerizable UV-absorbing agent, wherein the latent UV-absorbing polymeric units are derived from a polymerizable latent UV-absorbing agent, wherein the dual photo-functional polymeric units are derived from a polymerizable compound having a photoinitiating moiety and a UV-absorbing or latent UV-absorbing moiety; (4) optionally dangling polysiloxane polymeric units derived from one or more monoethylenically functionalized polysiloxane-containing vinylic monomers or macromers, wherein the dangling polysiloxane units is free of ethylenically unsaturated group; and (5) optionally siloxane polymeric units derived from at least one siloxane-containing vinylic monomer, wherein the prepolymer comprises three or more ethylenically unsaturated groups and is soluble in a solvent to form a solution and capable of being actinically crosslinked, in the absence of one or more vinylic monomers or a crosslinking agent, to form a UV absorbing or blocking silicone hydrogel contact lens.

2. The prepolymer of claim 1, wherein the prepolymer is obtained from an intermediary copolymer with one or more first functional groups by reacting the intermediary copolymer with a vinylic monomer having a second function group to covalently attach an ethylenically unsaturated group to the intermediary copolymer through one of the first functional groups, wherein the first and second functional groups are different from each other and selected from the group consisting of hydroxy groups, amino groups ($-NH_2$), carboxyl groups ($-COOH$), epoxy groups, aldehyde groups ($-CHO$), amide groups ($-CONH_2$), acid halide groups ($-COX$, X= Cl, Br, or I), isothiocyanate groups, isocyanate groups, halide groups ($-X$, X= Cl, Br, or I), acid anhydride groups, and combinations thereof, provided that each second functional group is coreactive with one of the first function groups to form a covalent linkage,

wherein the intermediary copolymer is obtained by copolymerization of a reactive mixture A or B,

wherein the reactive mixture A comprises (1) at least one polysiloxane-containing crosslinker; (2) one or more hydrophilic vinylic monomers; (3) a polymerizable UV-absorbing agent or a polymerizable latent UV-absorbing agent; (4) a free radical initiator; (5) optionally one or more monoethylenically functionalized polysiloxane-containing vinylic monomers or macromers; and (6) optionally siloxane units derived from at least one siloxane-containing

vinylic monomer, provided that at least one of components (1) – (3) and (5) further comprises at least one first functional group,

wherein the reactive mixture B comprises (1) at least one polysiloxane-containing crosslinker; (2) one or more hydrophilic vinylic monomers; (3) a polymerizable UV-absorbing agent or a polymerizable latent UV-absorbing agent; (4) a free radical initiator; (5) optionally one or more monoethylenically functionalized polysiloxane-containing vinylic monomers or macromers; (6) optionally siloxane units derived from at least one siloxane-containing vinylic monomer; and (7) at least one chain transfer agent having a first functional group.

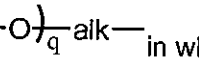
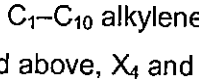
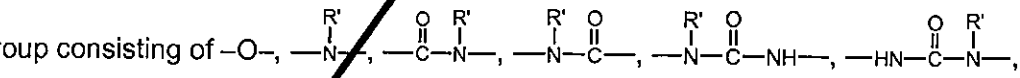
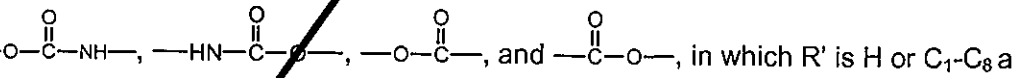
3. The prepolymer of claim 2, wherein the intermediary copolymer is obtained by copolymerization of a reactive mixture B.

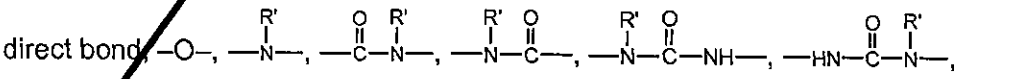
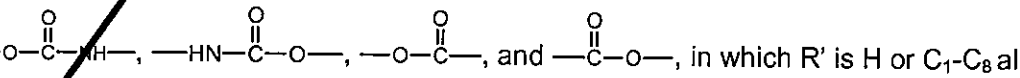
4. The prepolymer of claim 1, 2 or 3, wherein the polysiloxane crosslinker is defined by formula (1)



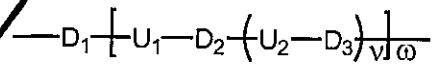
(1)

in which

A_1 and A_2 independent of each other is a linear or branched C_1–C_{10} alkyl diradical which optionally comprises one or more hydroxyl or amino groups, a divalent radical of  in which q is an integer of from 1 to 5 and alk and alk' independent of each other is a C_1–C_6 alkylene divalent radical, or a divalent radical of $-R'_1-X_4-E-X_5-R'_2-$ in which R'_1 and R'_2 independent of each other is a direct bond, a linear or branched C_1–C_{10} alkylene divalent radical, or a divalent radical of  as defined above, X_4 and X_5 independent of each other are a linkage selected from the group consisting of –O–, , , in which R' is H or C_1-C_8 alkyl, E is an alkyl diradical, a cycloalkyl diradical, an alkylcycloalkyl diradical, an alkylaryl diradical, or an aryl diradical with up to 40 carbon atoms;

X_1 and X_2 independent of each other are a linkage selected from the group consisting of a direct bond, –O–, , , in which R' is H or C_1-C_8 alkyl;

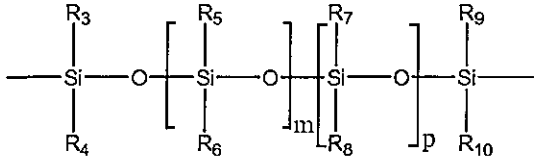
PDMS is a polysiloxane divalent radical of formula (2)



(2)

in which v is 0 or 1, ω is an integer of from 0 to 5, U_1 and U_2 independent of each other represent a divalent radical of $-R'_1-X_4-E-X_5-R'_2-$ as defined above or a

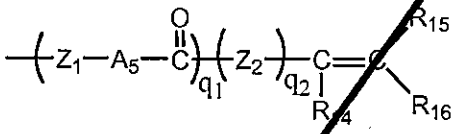
divalent radical of $-(alk'-O)_q-alk-$ as defined above, D_1, D_2 and D_3 independently of each other are a divalent radical selected from the group consisting of $-(CH_2CH_2O)_t-CH_2CH_2-$ in which t is an integer of 3 to 40, $-CF_2-(OCF_2)_a-(OCF_2CF_2)_b-OCF_2-$ in which a and b independent of each other is an integer of 0 to 10 provided that a+b is a number in the range of 10 to 30, and a divalent group of formula (3)



(3)

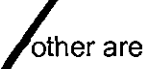
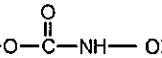
in which R_3, R_4, R_5, R_6, R_7, R_8, R_9 and R_{10}, independently of one another, are C_1-C_8-alkyl, C_1-C_4 alkyl- or C_1-C_4- alkoxy-substituted phenyl, fluoro(C_1-C_{18}-alkyl), cyano(C_1-C_{12}-alkyl), $-alk-(OCH_2CH_2)_n-OR_{11}$ in which alk is C_1-C_6-alkylene divalent radical, R_{11} is C_1-C_6 alkyl and n is an integer from 1 to 10, m and p independently of each other are an integer of from 2 to 698 and (m+p) is from 5 to 700, provided that at least one of D_1, D_2 and D_3 is represented by formula (3); and

Q is an ethylenically unsaturated group of formula (4)



(4)

in which Z_1 and Z_2 independent of each other are a linear or branched C_1–C_{12} alkylene divalent radical, a linear or branched C_1–C_{12} alkylene divalent radical having one or more hydroxyl groups, a radical of $-(CH_2CH_2O)_d-CH_2CH_2-$ in which d is an integer of 1 to 10, unsubstituted phenylene divalent radical, C_1-C_4 alkyl or C_1-C_4 alkoxy substituted phenylene divalent radical or C_7-C_{12} arakylene divalent radical; A_5 is –O– or  in which R' is H or C_1-C_8 alkyl; q_1 and q_2 independent of each other are an integer of 0 or 1; R_{14} is hydrogen or C_1-C_4 alkyl; R_{15} and R_{16} independent of each other are hydrogen, C_1-C_4 alkyl, phenyl, or carboxyl group.

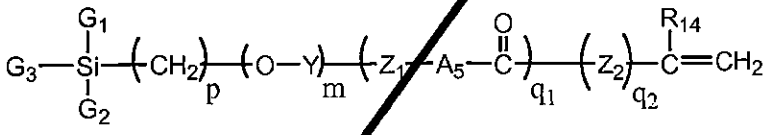
5. The prepolymer of claim 4, wherein in formula (2) ν is 0 or 1, ω is an integer of from 1 to 5, D_1, D_2 and D_3 independent of one another are divalent radical of formula (3) in which R_3, R_4, R_5, R_6, R_7, R_8, R_9 and R_{10}, are methyl, m and p independently of each other are an integer of from 2 to 698, (m+p) is from 5 to 700, U_1 and U_2 independent of each other represent a divalent radical of $-R'_1-X_4-E-X_5-R'_2-$ in which X_4 and X_5 independent of each other are  or , R_1' and R_2' independent of each other is a

divalent radical of $-(alk'-O)_q-alk-$ in which q is an integer of from 1 to 5 and alk and alk' independent of each other is a C_1–C_6 alkylene divalent radical, and E is an alkyl diradical, a cycloalkyl diradical, an alkylcycloalkyl diradical, an alkylaryl diradical, or an aryl diradical with up to 40 carbon atoms; wherein in formula (1) A_1 and A_2 independent of each other is a linear or branched C_1–C_{10} alkyl divalent radical, a divalent radical of $-(alk'-O)_q-alk-$ in which q, alk and alk' are defined as above, or a divalent radical of –R'_1–X_4–E–X_5–R'_2– in which R'_1 and R'_2 independent of each other is a direct bond, a linear or branched C_1–C_{10} alkylene divalent radical, or a divalent radical of $-(alk'-O)_q-alk-$ as defined above, X_4 and X_5 independent of each other are a linkage selected from the group consisting of –O–, $-\overset{R'}{\underset{|}{N}}-$, $-\overset{O}{\overset{\|}{C}}-\overset{R'}{\underset{|}{N}}-$, $-\overset{R'}{\underset{|}{N}}-\overset{O}{\overset{\|}{C}}-$, $-\overset{R'}{\underset{|}{N}}-\overset{O}{\overset{\|}{C}}-NH-$, $-HN-\overset{O}{\overset{\|}{C}}-\overset{R'}{\underset{|}{N}}-$, $-O-\overset{O}{\overset{\|}{C}}-NH-$, $-HN-\overset{O}{\overset{\|}{C}}-O-$, $-O-\overset{O}{\overset{\|}{C}}-$, and $-\overset{O}{\overset{\|}{C}}-O-$ in which R' is H or C_1-C_8 alkyl, E is defined as above, Q is an ethylenically unsaturated group of formula (4) in which R_{14}, R_{15}, and R_{16} independent of one another are hydrogen or methyl, Z_1 and Z_2 independent of each other are a linear or branched C_1–C_{12} alkylene divalent radical, a linear or branched C_1–C_{12} alkylene divalent radical having one or more hydroxyl groups, or a radical of –$(CH_2CH_2O)_d$–CH_2CH_2– in which d is an integer of 1 to 10, A_5 is A_5 is –O– or $-\overset{R'}{\underset{|}{N}}-$ in which R' is H or C_1-C_8 alkyl, q_1 and q_2 independent of each other are an integer of 0 or 1.

6. The prepolymer of claim 4, wherein the polysiloxane crosslinker is: (1) di-3-methacryloxypropyl-terminated polydimethylsiloxane; (2) di-vinyl-terminated polydimethylsiloxane; (3) a coupling product of a first ethylenically functionalizing vinylic monomer with di-(hydroxyethoxypropyl)-, di-hydroxy(polyethylenoxy)propyl-, di-(aminopropyl)-, di-ethylaminopropyl-, or di-carboxypropyl-terminated polydimethylsiloxane, wherein the first ethylenically functionalizing vinylic monomer is selected from the group consisting of isocyanatoethyl (meth)acrylate, glycidyl (meth)acrylate, vinyl glycidyl ether, allyl glycidyl ether, (meth)acrylic acid chloride, 2-(1-aziridinyl) ethyl (meth)acrylate, 3-(1-aziridinyl) propyl (meth)acrylate, 4-(1-aziridinyl) butyl (meth)acrylate, 6-(1-aziridinyl) hexyl (meth)acrylate, 8-(1-aziridinyl) octyl (meth)acrylate, 2-vinyl-4,4-dimethyl-1,3-oxazolin-5-one, 2-isopropenyl-4,4-dimethyl-1,3-oxazolin-5-one, and combination thereof; (4) a coupling product of a second ethylenically functionalizing vinylic monomer with di-carboxypropyl-terminated polydimethylsiloxane in the presence of a carbodiimide as a coupling agent, wherein the second ethylenically functionalizing vinylic monomer is selected from the group consisting of allylamine, amino–C_2-C_6 alkyl (meth)acrylate, C_1-C_6 alkylamino–C_2-C_6 alkyl (meth)acrylate, vinylamine, amino–C_2-C_6 alkyl (meth)acrylamide, C_1-C_6 alkylamino–C_2-C_6

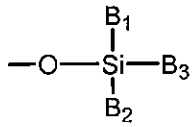
alkyl (meth)acrylamide, and combinations thereof; (5) a coupling product of a third ethylenically functionalizing vinylic monomer with di-aminopropyl- or di-ethylaminopropyl-terminated polydimethylsiloxane in the presence of a carbodiimide as a coupling agent, wherein the third ethylenically functionalizing vinylic monomer is selected from the group consisting of (meth)acrylic acid, ethylacrylic acid, propylacrylic acid, butylacrylic acid, 2-acrylamidoglycolic acid, and combinations thereof; (6) a coupling product of a fourth ethylenically functionalizing vinylic monomer with di-(hydroxyethoxypropyl)-, di-(aminopropyl)-, or di-ethylaminopropyl-terminated polydimethylsiloxane through a di-epoxy compound or a di-isocyanate, wherein the fourth ethylenically functionalizing vinylic monomer is selected from the group consisting of C_2-C_4 hydroxyalkyl(meth)acrylate, C_2-C_4 hydroxyalkyl(meth)acrylamide, allyl alcohol, allylamine, amino–C_2-C_6 alkyl (meth)acrylate, C_1-C_6 alkylamino–C_2-C_6 alkyl (meth)acrylate, vinylamine, amino–C_2-C_6 alkyl (meth)acrylamide, C_1-C_6 alkylamino–C_2-C_6 alkyl (meth)acrylamide, (meth)acrylic acid, and combination thereof, wherein the di-epoxy compound is 1,4-butanediol diglycidyl ether, 1,6-hexanediol diglycidyl ether, glycerol diglycidyl ether, ethylene glycol diglycidyl ether, diethylene glycol diglycidyl ether, polyethylene glycol diglycidyl ether, propylene glycol diglycidyl ether, dipropylene glycol diglycidyl ether, or combinations thereof, wherein the di-isocyante is isophorone diisocyanate, hexamethyl-1,6-diisocyanate, or 4,4'-dicyclohexylmethane diisocyanate.

7. The prepolymer of any one of claims 1 to 6, wherein the prepolymer comprises siloxane polymeric units derived from at least one siloxane-containing vinylic monomer of formula (6)



(6)

in which: R_{14} is H or CH_3; Z_1 and Z_2 independent of each other are a linear or branched C_1–C_{12} alkylene divalent radical, a linear or branched C_1–C_{12} alkylene divalent radical having one or more hydroxyl groups, a radical of $-(CH_2CH_2O)_d-CH_2CH_2$ in which d is an integer of 1 to 10, unsubstituted phenylene divalent radical, C_1-C_4 alkyl or C_1-C_4 alkoxy substituted phenylene divalent radical or C_7-C_{12} arakylene divalent radical; A_5 is –O– or  in which R' is H or C_1-C_8 alkyl; q_1 and q_2 independent of each other are an integer of 0 or 1; Y is a C_1-C_6 alkylene divalent radical or a C_1-C_6 alkylene divalent radical containing one or more hydroxyl groups, m is an integer of 0 to 5, p is an integer of 1 to 6, and G_1, G_2 and G_3 independent of each other are C_1-C_6 alkyl, phenyl, benzyl, or a radical of formula (7)



(7)

in which B_1, B_2 and B_3 independent of each other are C_1-C_6 alkyl, phenyl, or benzyl; provided that at least two of G_1, G_2 and G_3 are radicals of formula (7),

wherein the prepolymer comprises hydrophilic polymeric units derived from at least one hydrophilic vinylic monomer selected from the group consisting of N,N-dimethylacrylamide (DMA), N,N-dimethylmethacrylamide (DMMA), 2-acrylamidoglycolic acid monohydrate, 3-acryloylamino-1-propanol, N-hydroxyethyl acrylamide, *N*-[tris(hydroxymethyl)methyl]-acrylamide, N-methyl-3-methylene-2-pyrrolidone, 2-hydroxyethylmethacrylate (HEMA), 2-hydroxyethyl acrylate (HEA), hydroxypropyl acrylate, hydroxypropyl methacrylate (HPMA), trimethylammonium 2-hydroxy propylmethacrylate hydrochloride, aminopropyl methacrylate hydrochloride, dimethylaminoethyl methacrylate (DMAEMA), glycerol methacrylate (GMA), N-vinyl-2-pyrrolidone (NVP), allyl alcohol, vinylpyridine, acrylic acid, a C_1-C_4-alkoxy polyethylene glycol (meth)acrylate having a weight average molecular weight of from 200 to 1500, methacrylic acid, N-vinyl formamide, N-vinyl acetamide, N-vinyl isopropylamide, N-vinyl-N-methyl acetamide, allyl alcohol, N-vinyl caprolactam, and mixtures thereof.

8. The prepolymer of any one of claims 1 to 7, wherein the prepolymer comprises UV-absorbing polymeric units derived from a polymerizable UV-absorbing agent which comprises a benzotriazole-moiety and/or a benzophenone-moiety.

9. The prepolymer of any one of claims 1 to 7, wherein the polymerizable UV-absorbing agent is selected from the group consisting of 2-(2-hydroxy-5-vinylphenyl)-2H-benzotriazole, 2-(2-hydroxy-5-acryloxyphenyl)-2H-benzotriazole, 2-(2-hydroxy-3-methacrylamido methyl-5-tert octylphenyl)benzotriazole, 2-(2'-hydroxy-5'-methacrylamidophenyl)-5-chlorobenzotriazole, 2-(2'-hydroxy-5'-methacrylamidophenyl)-5-methoxybenzotriazole, 2-(2'-hydroxy-5'-methacryloxypropyl-3'-t-butyl-phenyl)-5-chlorobenzotriazo le, 2-(2'-hydroxy-5'-methacryloxyethylphenyl)benzotriazole, 2-(2'-hydroxy-5'-methacryloxypropylphenyl)-benzotriazole, 2-hydroxy-4-acryloxy alkoxy benzophenone, 2-hydroxy-4-methacryloxy alkoxy benzophenone, allyl-2-hydroxybenzophenone, 2-hydroxy-4-methacryloxy benzophenone, and mixtures thereof.

10. The prepolymer of any one of claims 1 to 7, wherein the prepolymer comprises latent UV-absorbing polymeric units derived from a polymerizable latent UV-absorbing agent which comprises a benzotriazole-moiety and/or a benzophenone-moiety, wherein the hydroxyl radical of the phenol moiety of the benzotriazole moiety is replaced with a protective labile group to form a latent UV-absorbing moiety, wherein the at least one hydroxyl radical of the phenolic radical of the benzophenone moiety is replaced with a protective labile group to form a latent UV-absorbing moiety.

11. The prepolymer of any one of claims 1 to 10, wherein the prepolymer comprises dual photo-functional polymeric units derived from a polymerizable compound having a photoinitiating moiety and a UV-absorbing or latent UV-absorbing moiety.

12. The prepolymer of any one of claims 1 to 11, further comprising hydrophobic polymeric units derived from at least one hydrophobic vinylic monomer selected from the group consisting of methylacrylate, ethyl-acrylate, propylacrylate, isopropylacrylate, cyclohexylacrylate; 2-ethylhexylacrylate, methylmethacrylate, ethylmethacrylate, propylmethacrylate, vinyl acetate, vinyl propionate, vinyl butyrate, vinyl valerate, styrene, chloroprene, vinyl chloride, vinylidene chloride, acrylonitrile, 1-butene, butadiene, methacrylonitrile, vinyl toluene, vinyl ethyl ether, perfluorohexylethyl-thio-carbonyl-aminoethyl-methacrylate, isobornyl methacrylate, isobornyl acrylate, norbornyl methacrylate, norbornyl acrylate, trifluoroethyl methacrylate, hexafluoro-isopropyl methacrylate, hexafluorobutyl methacrylate.

13. A soft contact lens, comprising a silicone hydrogel material that is obtained by curing, in a mold, a lens-forming material comprising an actinically crosslinkable prepolymer of any one of claims 1 to 12, wherein the contact lens has a UV-absorbing property characterized by being able to absorbing at least about 80 percent of a UV light in the range of from about 280 nm to about 370 nm that impinges on the lens.

14. The soft contact lens of claim 13, wherein the contact lens has at least one property selected from the group consisting of an oxygen permeability of at least about 40 barrers, an elastic modulus of about 2.0 MPa or less, an Ionoflux Diffusion Coefficient, D, of at least about 1.5×10^{-6} mm^2/min, and a water content of from about 15% to about 70%.

15. The soft contact lens of claim 13 or 14, further comprising a visibility tinting agent, an antimicrobial agent, bioactive agent, a leachable lubricant, or a combination thereof.

What is claimed is:

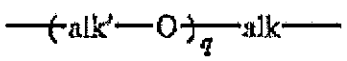
1. An actinically crosslinkable prepolymer, comprising: in the branched copolymer chains of the prepolymer, (1) crosslinking polysiloxane polymeric units derived from at least one polysiloxane-containing crosslinker; (2) hydrophilic polymeric units derived from one or more hydrophilic vinylic monomers; (3) dual photo-functional polymeric units, wherein the dual photo-functional polymeric units are derived from a polymerizable compound having an ethylenically unsaturated group, a photoinitiating moiety and a UV-absorbing or latent UV-absorbing moiety; (4) optionally dangling polysiloxane polymeric units derived from one or more monoethylenically functionalized polysiloxane-containing vinylic monomers or macromers, wherein the dangling polysiloxane units is free of ethylenically unsaturated group; and (5) optionally siloxane polymeric units derived from at least one siloxane-containing vinylic monomer, wherein the prepolymer comprises three or more ethylenically unsaturated groups and is soluble in a solvent to form a solution and capable of being actinically crosslinked, in the absence of one or more vinylic monomers or a crosslinking agent, to form a UV absorbing or blocking silicone hydrogel contact lens.

2. The prepolymer of claim 1, wherein the polysiloxane crosslinker is defined by formula (1)

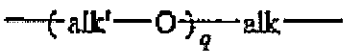
$$Q\text{-}X_1\text{-}A_1\text{-}PDMS\text{-}A_2\text{-}X_2\text{-}Q \qquad (1)$$

in which

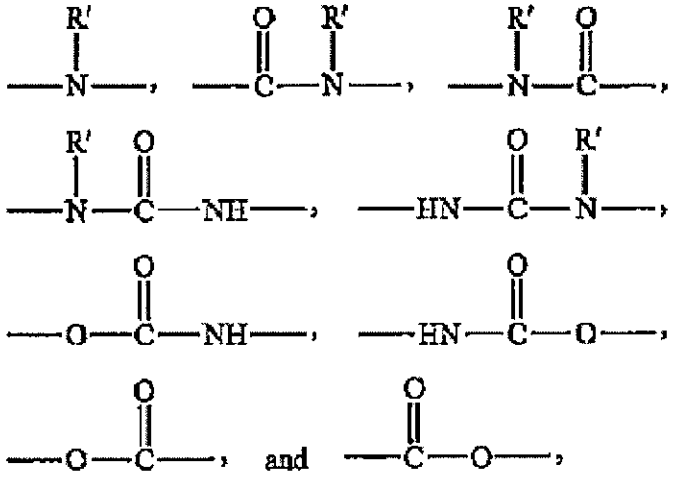
A_1 and A_2 independent of each other is a linear or branched C_1-C_{10} alkyl diradical which optionally comprises one or more hydroxyl or amino groups, a divalent radical of



in which q is an integer of from 1 to 5 and alk and alk' independent of each other is a C_1-C_6 alkylene divalent radical, or a divalent radical of —R'_1—X_4-E-X_5—R'_2— in which R'_1 and R'_2 independent of each other is a direct bond, a linear or branched C_1-C_{10} alkylene divalent radical, or a divalent radical of

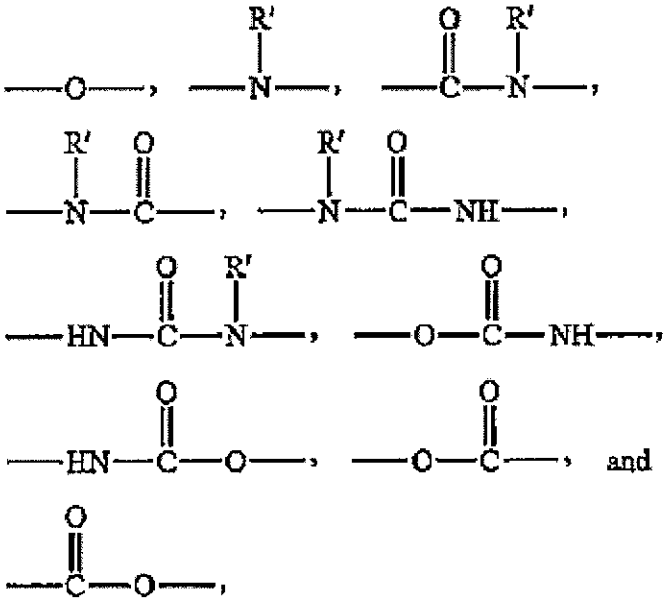


as defined above, X_4 and X_5 independent of each other are a linkage selected from the group consisting of —O—,



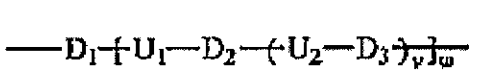
in which R' is H or C_1-C_8 alkyl, E is an alkyl diradical, a cycloalkyl diradical, an alkylcycloalkyl diradical, an alkylaryl diradical, or an aryl diradical with up to 40 carbon atoms;

X_1 and X_2 independent of each other are a linkage selected from the group consisting of a direct bond,



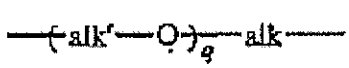
in which R' is H or C_1-C_8alkyl;

PDMS is a polysiloxane divalent radical of formula (2)



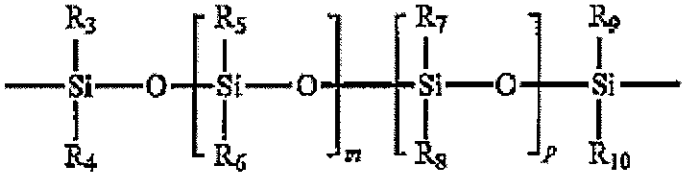
(2)

in which ν is 0 or 1, ω is an integer of from 0 to 5, U_1 and U_2 independent of each other represent a divalent radical of —R'_1—X_4-E-X_5—R'_2— as defined above or a divalent radical of



as defined above, D_1, D_2 and D_3 independently of each other are a divalent radical selected from the group consisting of —$(CH_2CH_2O)_t$—CH_2CH_2— in which t is an integer of 3 to 40, —CF_2—$(OCF_2)_a$—$(OCF_2CF_2)_b$—OCF_2— in which a and b independent of each other is an integer of 0 to 10 provided that a+b is a number in the range of 10 to 30, and a divalent group of formula (3)

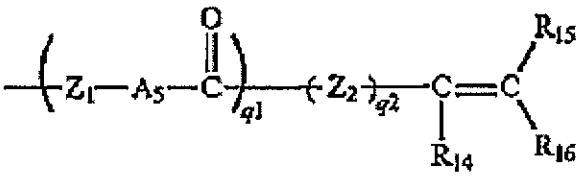
(3)



in which R_3, R_4, R_5', R_6, R_7, R_8, R_9 and R_{10}, independently of one another, are C_1-C_8-alkyl, C_1-C_4 alkyl- or C_1-C_4- alkoxy-substituted phenyl, fluoro(C_1-C_{18}-alkyl), cyano(C_1-C_{12}-alkyl), -alk-$(OCH_2CH_2)_n$—OR_{11} in which alk is C_1-C_6-alkylene divalent radical, R_{11} is C_1-C_6 alkyl and n is an integer from 1 to 10, m and p independently of each other are an integer of from 2 to 698 and (m+p) is from 5 to 700, provided that at least one of D_1, D_2 and D_3 is represented by formula (3); and

Q is an ethylenically unsaturated group of formula (4)

(4)



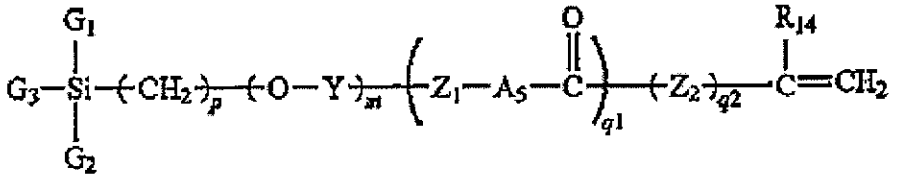
in which Z_1 and Z_2 independent of each other are a linear or branched C_1-C_{12} alkylene divalent radical, a linear or branched C_1-C_{12} alkylene divalent radical having one or more hydroxyl groups, a radical of —$(CH_2CH_2O)_d$—CH_2CH_2— in which d is an integer of 1 to 10, unsubstituted phenylene divalent radical, C_1-C_4 alkyl or C_1-C_4 alkoxy substituted phenylene divalent radical or C_7-C_{12} arakylene divalent radical; A_5 is —O— or



in which R' is H or C_1-C_8 alkyl; q_1 and q_2 independent of each other are an integer of 0 or 1; R_{14} is hydrogen or C_1-C_4 alkyl; R_{15} and R_{16} independent of each other are hydrogen, C_1-C_4 alkyl, phenyl, or carboxyl group.

3. The prepolymer of claim 1, wherein the prepolymer comprises siloxane polymeric units derived from at least one siloxane-containing vinylic monomer of formula (6)

(6)

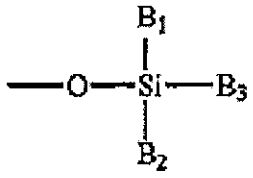


in which: R_{14} is H or CH_3; Z_1 and Z_2 independent of each other are a linear or branched C_1-C_{12} alkylene divalent radical, a linear or branched C_1-C_{12} alkylene divalent radical having one or more hydroxyl groups, a radical of $—(CH_2CH_2O)_d—CH_2CH_2$ in which d is an integer of 1 to 10, unsubstituted phenylene divalent radical, C_1-C_4 alkyl or C_1-C_4 alkoxy substituted phenylene divalent radical or C_7-C_{12} arakylene divalent radical; A_5 is —O— or



in which R' is H or C_1-C_8 alkyl; q_1 and q_2 independent of each other are an integer of 0 or 1; Y is a C_1-C_6 alkylene divalent radical or a C_1-C_6 alkylene divalent radical containing one or more hydroxyl groups, m is an integer of 0 to 5, p is an integer of 1 to 6, and G_1, G_2 and G_3 independent of each other are C_1-C_6 alkyl, phenyl, benzyl, or a radical of formula (7)

(7)



in which B_1, B_2 and B_3 independent of each other are C_1-C_6 alkyl, phenyl, or benzyl; provided that at least two of G_1, G_2 and G_3 are radicals of formula (7).

4. The prepolymer of claim 1, wherein the prepolymer comprises hydrophilic polymeric units derived from at least one hydrophilic vinylic monomer selected from the group consisting of N,N-dimethylacrylamide (DMA), N,N-dimethylmethacrylamide (DMMA), 2-acrylamidoglycolic acid monohydrate, 3-acryloylamino-1-propanol, N-hydroxyethyl acrylamide, N-[tris(hydroxymethyl)methyl]-acrylamide, N-methyl-3-methylene-2-pyrrolidone, 2-hydroxyethylmethacrylate (HEMA), 2-hydroxyethyl acrylate (HEA), hydroxypropyl acrylate, hydroxypropyl methacrylate (HPMA), trimethylammonium 2-hydroxy propylmethacrylate hydrochloride, aminopropyl methacrylate hydrochloride, dimethylaminoethyl methacrylate (DMAEMA), glycerol methacrylate (GMA), N-vinyl-2-pyrrolidone (NVP), allyl alcohol, vinylpyridine, acrylic acid, a C_1-C_4-alkoxy polyethylene glycol (meth)acrylate having a weight average molecular weight of from 200 to 1500, methacrylic acid, N-vinyl formamide, N-vinyl acetamide, N-vinyl isopropylamide, N-vinyl-N-methyl acetamide, allyl alcohol, N-vinyl caprolactam, and mixtures thereof.

5. An actinically crosslinkable prepolymer, comprising: in the branched copolymer chains of the prepolymer, (1) crosslinking polysiloxane polymeric units derived from at least one polysiloxane-containing crosslinker; (2) hydrophilic polymeric units derived from one or more hydrophilic vinylic monomers; (3) UV-absorbing polymeric units, latent UV-absorbing polymeric units, or dual photo-functional polymeric units, wherein the UV-absorbing polymeric units are derived from a polymerizable UV-absorbing agent, wherein the latent UV-absorbing polymeric units are derived from a polymerizable latent UV-absorbing agent, wherein the dual photo-functional polymeric units are derived from a polymerizable compound having an ethylenically unsaturated group, a photoinitiating moiety and a UV-absorbing or latent UV-absorbing moiety; (4) optionally dangling polysiloxane polymeric units derived from one or more monoethylenically functionalized polysiloxane-containing vinylic monomers or macromers, wherein the dangling polysiloxane units is free of ethylenically unsaturated group; (5) optionally siloxane polymeric units derived from at least one siloxane-containing vinylic monomer, and (6) hydrophobic polymeric units derived from at least one hydrophobic vinylic monomer selected from the group consisting of methylacrylate, ethylacrylate, propylacrylate, isopropylacrylate, cyclohexylacrylate, 2-ethylhexylacrylate, methylmethacrylate, ethylmethacrylate, propylmethacrylate, vinyl acetate, vinyl propionate, vinyl butyrate, vinyl valerate, styrene, chloroprene, vinyl chloride, vinylidene chloride, acrylonitrile, 1-butene, butadiene, methacrylonitrile, vinyl toluene, vinyl ethyl ether, perfluorohexylethyl-thio-carbonyl-aminoethyl-methacrylate, isobornyl methacrylate, isobornyl acrylate, norbornyl methacrylate, norbornyl acrylate, trifluoroethyl methacrylate, hexafluoro-isopropyl methacrylate, hexafluorobutyl methacrylate, wherein the prepolymer comprises three or more ethylenically unsaturated groups and is soluble in a solvent to form a solution and capable of being actinically crosslinked, in the absence of one or more vinylic monomers or a crosslinking agent, to form a UV absorbing or blocking silicone hydrogel contact lens.

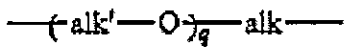
6. A soft contact lens, having a UV-absorbing property characterized by being able to absorbing at least about 80 percent of a UV light in the range of from about 280 nm to about 370 nm that impinges on the lens; and comprising a silicone hydrogel material that is obtained by curing a lens-forming material in a mold, wherein the lens-forming material comprises an actinically crosslinkable prepolymer which comprises, in the branched copolymer chains of the prepolymer, (1) crosslinking polysiloxane polymeric units derived from at least one polysiloxane-containing crosslinker; (2) hydrophilic polymeric units derived from one or more hydrophilic vinylic monomers; (3) dual photo-functional polymeric units, wherein the dual photo-functional polymeric units are derived from a polymerizable compound having an ethylenically unsaturated group, a photoinitiating moiety and a UV-absorbing or latent UV-absorbing moiety; (4) optionally dangling polysiloxane polymeric units derived from one or more monoethylenically functionalized polysiloxane-containing vinylic monomers or macromers, wherein the dangling polysiloxane units is free of ethylenically unsaturated group; and (5) optionally siloxane polymeric units derived from at least one siloxane-containing vinylic monomer.

7. The soft contact lens of claim 6, wherein the polysiloxane crosslinker is defined by formula (1)

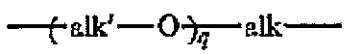
$$Q\text{-}X_1\text{-}A_1\text{-}PDMS\text{-}A_2\text{-}X_2\text{-}Q \quad (1)$$

in which

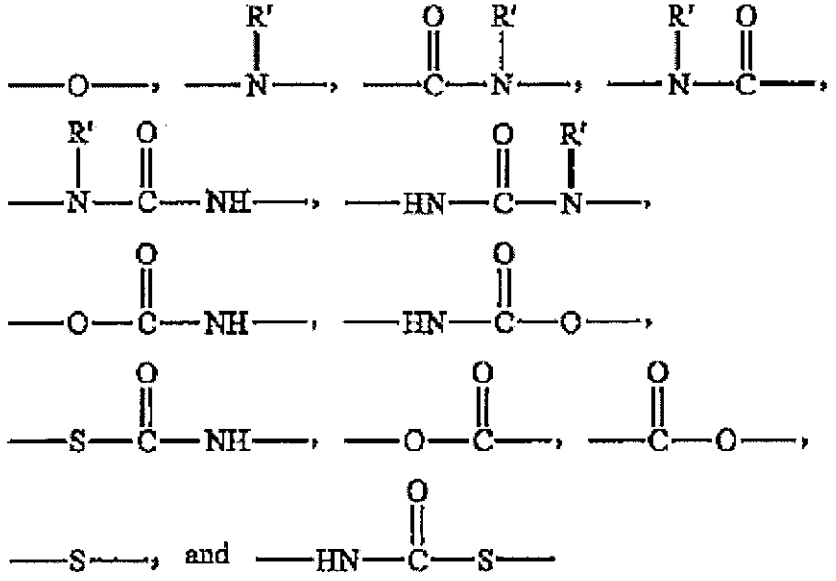
A_1 and A_2 independent of each other is a linear or branched C_1-C_{10} alkyl diradical which optionally comprises one or more hydroxyl or amino groups, a divalent radical of



in which q is an integer of from 1 to 5 and alk and alk' independent of each other is a C_1-C_6 alkylene divalent radical, or a divalent radical of —R'_1—X_4-E-X_5—R'_2— in which R'_1 and R'_2 independent of each other is a linear or branched C_1-C_{10} alkylene divalent radical or a divalent radical of

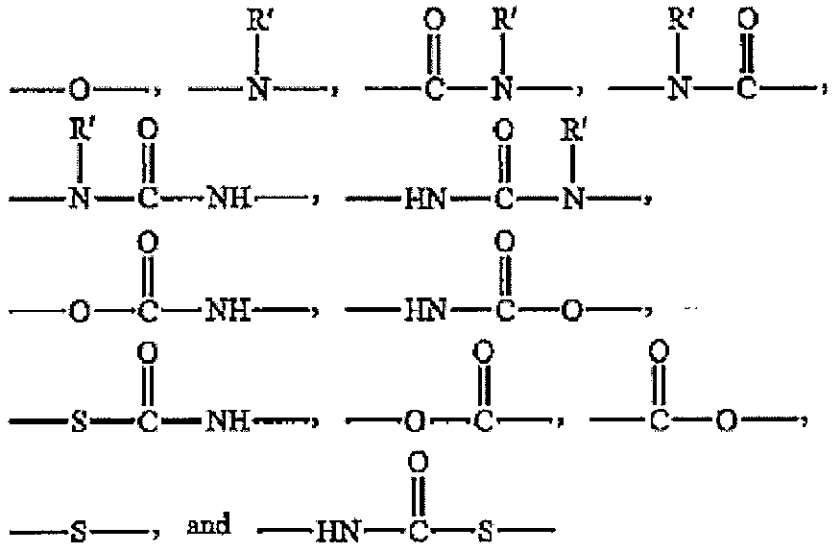


as defined above, X_4 and X_5 independent of each other are a linkage selected from the group consisting of



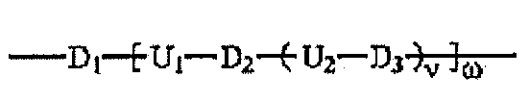
in which R' is H or C_1-C_8 alkyl, E is an alkyl diradical, a cycloalkyl diradical, an alkylcycloalkyl diradical, an alkylaryl diradical, or an aryl diradical with up to 40 carbon atoms which may have ether, thio, or amine linkages in the main chain;

X_1 and X_2 independent of each other are a linkage selected from the group consisting of a direct bond,



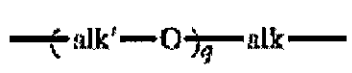
in which R' is H or C_1-C_8 alkyl;

PDMS is a polysiloxane divalent radical of formula (2)



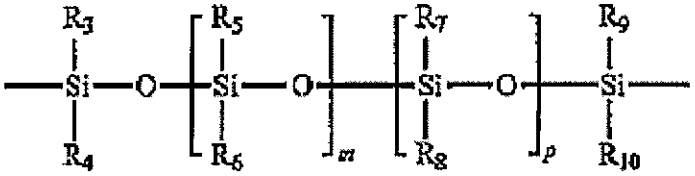
(2)

in which v is 0 or 1, ω is an integer of from 0 to 5, U_1 and U_2 independent of each other represent a divalent radical of —R'_1—X_4-E-X_5—R'_2— as defined above or a divalent radical of



as defined above, D_1, D_2 and D_3 independently of each other are a divalent radical selected from the group consisting of —$(CH_2CH_2O)_t$—CH_2CH_2—in which t is an integer of 3 to 40, —CF_2—$(OCF_2)_a$—$(OCF_2CF_2)_b$—OCF_2— in which a and b independent of each other is an integer of 0 to 10 provided that a+b is a number in the range of 10 to 30, and a divalent group of formula (3)

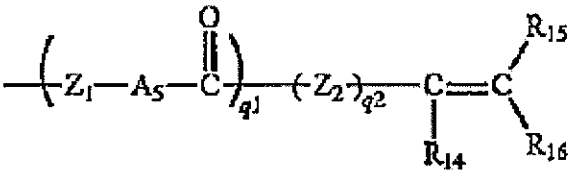
(3)



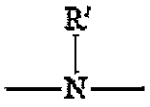
in which R_3, R_4, R_5^1, R_6, R_7, R_8, R_9 and R_{10}, independently of one another, are C_1-C_8-alkyl, C_1-C_4 alkyl- or C_1-C_4- alkoxy-substituted phenyl, fluoro(C_1-C_{18}-alkyl), cyano(C_1-C_{12}-alkyl), -alk-$(OCH_2CH_2)_n$—OR_{11} in which alk is C_1-C_6-alkylene divalent radical, R_{11} is C_1-C_6 alkyl and n is an integer from 1 to 10, m and p independently of each other are an integer of from 2 to 698 and (m+p) is from 5 to 700, provided that at least one of D_1, D_2 and D_3 is represented by formula (3); and

Q is an ethylenically unsaturated group of formula (4)

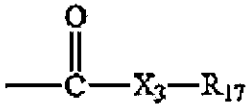
(4)



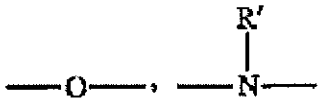
in which Z_1 and Z_2 independent of each other are a linear or branched C_1-C_{12} alkylene divalent radical, a linear or branched C_1-C_{12} alkylene divalent radical having one or more hydroxyl groups, a radical of —$(CH_2CH_2O)_d$—CH_2CH_2— in which d is an integer of 1 to 10, unsubstituted phenylene divalent radical, C_1-C_4 alkyl or C_1-C_4 alkoxy substituted phenylene divalent radical or C_7-C_{12} arakylene divalent radical; A_5 is —O— or



in which R' is H or C_1-C_8 alkyl; q_1 and q_2 independent of each other are an integer of 0 or 1; R_{14} is hydrogen, C_1-C_4 alkyl or halogen; R_{15} and R_{16} independent of each other are hydrogen, C_1-C_4 alkyl, phenyl, carboxy, halogen, or a radical of



in which X_3 is



as defined above or —S— and R_{17} is a C_1-C_{12} alkyl, hydroxyalkyl, aminoalkyl, alkylaminoalkyl or dialkylaminoalkyl radical.

8. The soft contact lens of claim 7, wherein the contact lens has at least one property selected from the group consisting of an oxygen permeability of at least about 40 barrers, an elastic modulus of about 2.0 MPa or less, an Ionoflux Diffusion Coefficient, D, of at least about 1.5×10^{-6} mm^2/min, and a water content of from about 15% to about 70%.

9. The soft contact lens of claim 7, further comprising a visibility tinting agent, an antimicrobial agent, bioactive agent, a leachable lubricant, or a combination thereof.