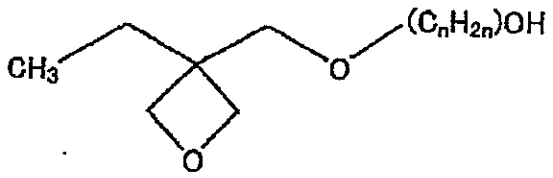
(A) an epoxy resin having at least two epoxy groups in one molecule thereof and being liquid at room temperature; and

(B) an oxetane compound represented by the following general formula (1):



.....(1)

in which n is an integer of from 1 to 6.

2. The photocurable resin composition according to item 1, in which the ingredient (A) includes an alicyclic epoxy resin.

[0012]

3. An optical component formed from a cured product of the photocurable resin composition according to item 1 or 2 and having a refractive index of 1.50 or more.

[0013]

Specifically, the present inventors have assiduously studied for the purpose of solving the above-mentioned problems. In the process of the studies, they have devised to use a specific oxetane compound (ingredient (B)) represented by the above general formula (1) in the photocurable resin composition including an epoxy resin, an oxetane compound, and a photopolymerization initiator. Since the oxetane compound has a C1 to C6 alkyl chain, hydrophobicity can be improved with exhibiting curability equal to or higher than that in the case of a primary alcohol-containing oxetane compound having no alkylene chain. Therefore, it becomes possible to attain both rapid curability and low water absorbability, which are hitherto considered to be difficult to attain. Moreover, when the epoxy resin of the ingredient (A) is contained as the epoxy resin and the containing ratios of the epoxy resin and the specific oxetane compound

(ingredient (B)) are within specific ranges, effects of improving flowability, heat resistance and mechanical properties are obtained and also it becomes possible to control the refractive index after curing to a high refractive index (refractive index of 1.50 or more). Thus, the inventors have come to the conviction that the intended object can be attained by these findings, and have achieved the invention.

[0014]

As in the above, the photocurable resin composition of the invention includes an epoxy resin (ingredient (A)) having at least two epoxy groups in one molecule thereof and being liquid at room temperature and a specific oxetane compound (ingredient (B)) and the containing ratios of the epoxy resin (ingredient (A)) and the specific oxetane compound (ingredient (B)) are set within specific ranges. Therefore, a high refractive index can be attained as well as both rapid curability and low water absorbability can be achieved and further, effects of improving flowability, heat resistance and mechanical properties are also obtained. Furthermore, the photocurable resin composition of the invention can be not only cured solely by itself but also cured on another member, for example, a transparent substrate such as glass. By integrating the composition with the transparent substrate, it is possible to produce a high-quality hybrid lens. Accordingly, when the photocurable resin composition of the invention is used as a molding material for optical materials such as optical lenses, it can be used as a highly reliable photocurable resin exhibiting high productivity, so that the composition is useful. Moreover, since the photocurable resin composition of the invention is usually a liquid composition before curing, it is also possible to use the composition as a photocurable adhesive for fixation of optical components.

[0015]

Furthermore, the optical component of the invention, which uses the above-mentioned photocurable resin composition, is inexpensive and also has a high refractive

WHAT IS CLAIMED IS:

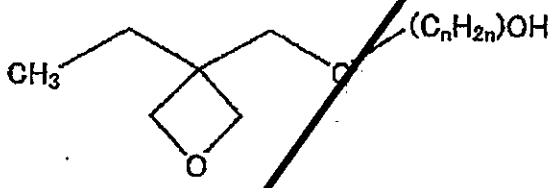
1. A photocurable resin composition comprising an epoxy resin, an oxetane compound and a photopolymerization initiator,

wherein the epoxy resin comprises the following ingredient (A), and the oxetane compound comprises the following ingredient (B), and

the ingredient (A) is contained in an amount of from 50 to 95% by weight and the ingredient (B) is contained in an amount of from 5 to 40% by weight relative to 100% by weight of a total resin amount in the resin composition:

(A) an epoxy resin having at least two epoxy groups in one molecule thereof and being liquid at room temperature; and

(B) an oxetane compound represented by the following general formula (1):



.....(1)

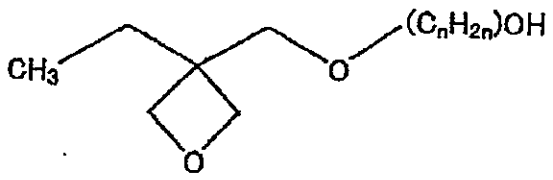
wherein n is an integer of from 1 to 6.

2. The photocurable resin composition according to claim 1, wherein the ingredient (A) comprises an alicyclic epoxy resin.

3. An optical component formed from a cured product of the photocurable resin composition according to claim 1 or 2 and having a refractive index of 1.50 or more.

(A) an epoxy resin having at least two epoxy groups in one molecule thereof and being liquid at room temperature; and

(B) an oxetane compound represented by the following general formula (1):



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in which n is an integer of from 1 to 6.

2. The photocurable resin composition according to item 1, in which the ingredient (A) includes an alicyclic epoxy resin.

[0012]

3. An optical component formed from a cured product of the photocurable resin composition according to item 1 or 2 and having a refractive index of 1.50 or more.

[0013]

Specifically, the present inventors have assiduously studied for the purpose of solving the above-mentioned problems. In the process of the studies, they have devised to use a specific oxetane compound (ingredient (B)) represented by the above general formula (1) in the photocurable resin composition including an epoxy resin, an oxetane compound, and a photopolymerization initiator. Since the oxetane compound has a C1 to C6 alkyl chain, hydrophobicity can be improved with exhibiting curability equal to or higher than that in the case of a primary alcohol-containing oxetane compound having no alkyl chain. Therefore, it becomes possible to attain both rapid curability and low water absorbability, which are hitherto considered to be difficult to attain. Moreover, when the epoxy resin of the ingredient (A) is contained as the epoxy resin and the containing ratios of the epoxy resin and the specific oxetane compound

(ingredient (B)) are within specific ranges, effects of improving flowability, heat resistance and mechanical properties are obtained and also it becomes possible to control the refractive index after curing to a high refractive index (refractive index of 1.50 or more). Thus, the inventors have come to the conviction that the intended object can be attained by these findings, and have achieved the invention.

[0014]

As in the above, the photocurable resin composition of the invention includes an epoxy resin (ingredient (A)) having at least two epoxy groups in one molecule thereof and being liquid at room temperature and a specific oxetane compound (ingredient (B)) and the containing ratios of the epoxy resin (ingredient (A)) and the specific oxetane compound (ingredient (B)) are set within specific ranges. Therefore, a high refractive index can be attained as well as both rapid curability and low water absorbability can be achieved and further, effects of improving flowability, heat resistance and mechanical properties are also obtained. Furthermore, the photocurable resin composition of the invention can be not only cured solely by itself but also cured on another member, for example, a transparent substrate such as glass. By integrating the composition with the transparent substrate, it is possible to produce a high-quality hybrid lens. Accordingly, when the photocurable resin composition of the invention is used as a molding material for optical components such as optical lenses, it can be used as a highly reliable photocurable resin exhibiting high productivity, so that the composition is useful. Moreover, since the photocurable resin composition of the invention is usually a liquid composition before curing, it is also possible to use the composition as a photocurable adhesive for fixation of optical components.

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Furthermore, the optical component of the invention, which uses the above-mentioned photocurable resin composition, is inexpensive and also has a high refractive

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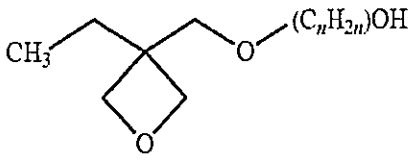
1. A photocurable resin composition consisting essentially of an epoxy resin, an oxetane compound and a photopolymerization initiator,

wherein the epoxy resin comprises the following ingredient (A), and the oxetane compound comprises the following ingredient (B), and

the ingredient (A) is contained in an amount of from 60-95% by weight and the ingredient (B) is contained in an amount of from 5 to 40% by weight relative to 100% by weight of a total resin amount in the resin composition:

(A) an epoxy resin having at least two epoxy groups in one molecule thereof and being liquid at room temperature; and

(B) an oxetane compound represented by the following general formula (1):



(1)

in which n is an integer of from 1 to 6.

2. The photocurable resin composition according to claim 1, wherein the ingredient (A) comprises an alicyclic epoxy resin.

3. An optical component formed from a cured product of the photocurable resin composition according to claim 1 and having a refractive index of 1.50 or more.

4. An optical component formed from a cured product of the photocurable resin composition according to claim 2 and having a refractive index of 1.50 or more.