CLAIMS

1. A detergent composition for textile products comprising the following component (A) and component (B):

component (A): an internal olefin sulfonate having 15 or more and 24 or less carbon atoms and including an internal olefin sulfonate having 15 or more and 24 or less carbon atoms with the sulfonate group at position 5 or higher, and

component (B): a nonionic surfactant having an HLB of more than 10.5 and 19 or less, and

wherein the content of the internal olefin sulfonate having 15 or more and 24 or less carbon atoms with the sulfonate group at position 5 or higher is 29.9% by mass or more and 60% by mass or less in the component (A), and

wherein a mass ratio (B)/(A) of the component (B) to the component (A) is 0.1 or more and 9 or less.

2. The detergent composition for textile products according to claim 1, wherein the component (B) is a nonionic surfactant containing a polyoxyethylene group and having an HLB of more than 10.5 and 19 or less.

3. The detergent composition for textile products according to claim 1, wherein the component (B) is a nonionic surfactant having an HLB of more than 10.5 and

19 or less and represented by the following general formula (b1):

$$R^1(CO)_mO-(A^1O)_n-R^2 \quad (b1)$$

wherein R^1 is an aliphatic hydrocarbon group having 9 or more and 18 or less carbon atoms, R^2 is a hydrogen atom or a methyl group, CO is a carbonyl group, m is 0 or 1, A^1O group is one or more groups selected from an ethyleneoxy group and a propyleneoxy group, and n is an average number of added moles and is 6 or more and 50 or less.

4. The detergent composition for textile products according to claim 3, wherein in the general formula (b1), the A^1O group is a group containing an ethyleneoxy group.

5. The detergent composition for textile products according to any one of claims 1 to 4, wherein the component (A) is one or more selected from the following component (a1) and component (a2), wherein a mass ratio (a2)/(a1) of the component (a2) to the component (a1) is 0 or more and 1 or less:

component (a1): an internal olefin sulfonate having 15 or more and 16 or less carbon atoms and including an internal olefin sulfonate having 15 or more and 16 or less carbon atoms with the sulfonate group at position 5 or higher, and

component (a2): an internal olefin sulfonate having 17 or more and 24 or less carbon atoms and including an internal olefin sulfonate having 17 or more and 24 or less carbon atoms with the sulfonate group at position 5 or higher.

6. The detergent composition for textile products according to any one of claims 1 to 5, wherein a total of the content of the component (A) and the content of the component (B) in all surfactants in the detergent composition for textile products is 60% by mass or more and 100% by mass or less.

7. The detergent composition for textile products according to any one of claims 1 to 6, further comprising water.

8. The detergent composition for textile products according to any one of claims 1 to 7, wherein a total of the content of the component (A) and the content of the component (B) in the detergent composition for textile products is 4% by mass or more and 60% by mass or less.

9. A method for washing textile products with a detergent liquid comprising the following component (A) and component (B), and water, wherein a hardness of the detergent liquid is more than 0°dH:

component (A): an internal olefin sulfonate having 15 or more and 24 or less carbon atoms and including an internal olefin sulfonate having 15 or more and 24 or less carbon atoms with the sulfonate group at position 5 or higher,

component (B): a nonionic surfactant having an HLB of more than 10.5 and 19 or less, and

wherein the content of the internal olefin sulfonate having 15 or more and 24 or less carbon atoms with the sulfonate group at position 5 or higher is 29.9% by mass or more and 60% by mass or less in the component (A), and

wherein a mass ratio (B)/(A) of the component (B) to the component (A) is 0.1 or more and 9 or less.

10. The method for washing textile products according to claim 9, wherein the component (B) is a nonionic surfactant containing a polyoxyethylene group and having an HLB of more than 10.5 and 19 or less.

11. The method for washing textile products according to claim 9, wherein the component (B) is a nonionic surfactant having an HLB of more than 10.5 and 19 or less and represented by the following general formula (b1):

$$R^1(CO)_mO-(A^1O)_n-R^2 \quad (b1)$$

wherein R^1 is an aliphatic hydrocarbon group having 9 or more and 18 or less carbon atoms, R^2 is a hydrogen atom or a methyl group, CO is a carbonyl group, m is 0 or 1,

A^1O group is one or more groups selected from an ethyleneoxy group and a propyleneoxy group, and n is an average number of added moles and is 6 or more and 50 or less.

12. The method for washing textile products according to claim 11, wherein in the general formula (b1), the A^1O group is a group containing an ethyleneoxy group.

13. The method for washing textile products according to any one of claims 9 to 12, wherein the component (A) is one or more selected from the following component (a1) and component (a2), and a mass ratio (a2)/(a1) of the component (a2) to the component (a1) in the detergent liquid is 0 or more and 1 or less:

component (a1): an internal olefin sulfonate having 15 or more and 16 or less carbon atoms and including an internal olefin sulfonate having 15 or more and 16 or less carbon atoms with the sulfonate group at position 5 or higher, and

component (a2): an internal olefin sulfonate having 17 or more and 24 or less carbon atoms and including an internal olefin sulfonate having 17 or more and 24 or less carbon atoms with the sulfonate group at position 5 or higher.

14. The method for washing textile products according to any one of claims 9 to 13, wherein a total of the content of the component (A) and the content of the component (B) in all surfactants in the detergent liquid is 60% by mass or more and 100% by mass or less.

15. The method for washing textile products according to any one of claims 9 to 14, wherein the hardness of the detergent liquid is, by German hardness, 0.5°dH or more and 20°dH or less.

16. The method for washing textile products according to any one of claims 9 to 15, wherein the content of the component (A) in the detergent liquid is 0.005% by mass or more and 1.0% by mass or less, and the content of the component (B) in the detergent liquid is 0.001% by mass or more and 5.0% by mass or less.

17. A method for producing a detergent composition for textile products, comprising mixing the following component (A) and component (B):

component (A): an internal olefin sulfonate having 15 or more and 24 or less carbon atoms and including an internal olefin sulfonate having 15 or more and 24 or less carbon atoms with the sulfonate group at position 5 or higher, and

component (B): a nonionic surfactant having an HLB of more than 10.5 and 19 or less, and

wherein the content of the internal olefin sulfonate having 15 or more and 24 or less carbon atoms with the sulfonate group at position 5 or higher is 29.9% by mass or more and 60% by mass or less in the component (A), and

wherein a mass ratio (B)/(A) of the component (B) to the component (A) is 0.1 or more and 9 or less.