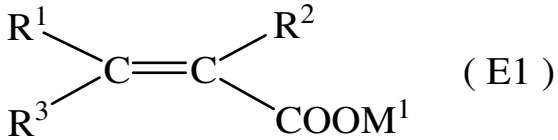
CLAIMS

1. A liquid cleaning agent composition for soil comprising, (A) a nonionic surfactant [hereinafter referred to as component (A)], (B) one or more compounds selected from ethylene glycol monobutyl ether, ethylene glycol monoisobutyl ether, diethylene glycol monobutyl ether, diethylene glycol monoisobutyl ether and triethylene glycol monobutyl ether [hereinafter referred to as component (B)] and (C) water, wherein the content of the water (C) is 15 mass% or more and 80 mass% or less and the content of component (A) is 5 mass% or more and 80 mass% or less.

2. The liquid cleaning agent composition for soil according to claim 1, further comprising (D) an anionic surfactant.

3. The liquid cleaning agent composition for soil according to claim 1 or claim 2, further comprising (E) a polymer obtained by polymerizing a monomer represented by the following general formula (E1) at a ratio of 30 mol% or more and 100 mol% or less in all monomers or a salt thereof [hereinafter referred to as component (E)],



(E1)

wherein R^1, R^2 and R^3 independently represent a hydrogen atom, a methyl group or $(CH_2)_mCOOM^2$; $(CH_2)_mCOOM^2$ may form an anhydride with $COOM^1$ or another $(CH_2)_mCOOM^2$, in which case M^1 and M^2 are absent from those groups; M^1 and M^2 independently represent a hydrogen atom, an alkali metal, an alkaline earth metal, an ammonium group, an alkyl ammonium group or a substituted alkyl ammonium group; and m represents a number of 0 or more and 2 or less.

4. The liquid cleaning agent composition for soil according to claim 3, wherein the component (E) is a copolymer of the monomer represented by the general formula (E1) and an olefin with 4 or more and 8 or less carbons or a salt thereof.

5. The liquid cleaning agent composition for soil according to claim 3 or claim 4, wherein the component (E) is a copolymer of maleic acid and diisobutylene or a salt thereof.

6. The liquid cleaning agent composition for soil according to any one of claims 1 to 5, optionally comprising (F) one or more compounds selected from isopropyl alcohol and ethanol, wherein the content of the component (F) is 4 mass% or less.

7. The liquid cleaning agent composition for soil according to any one of claims 1 to 5, further comprising (F) one or more compounds selected from isopropyl alcohol and ethanol, wherein a mass ratio of the content of the component (B) to the content of the component (F), (B)/(F), is 4 or more and 10 or less.

8. The liquid cleaning agent composition for soil according to any one of claims 1 to 7, comprising the component (B) in an amount of 1 mass% or more and 15 mass% or less.

9. The liquid cleaning composition for soil according to any one of claims 1 to 8, wherein component (A) is one or more selected from polyoxyalkylene alkyl or alkenyl ethers, sorbitan fatty acid esters, polyoxyethylene sorbitan fatty acid esters, polyoxyethylene sorbitol fatty acid esters, fatty acid monoglycerides and polyethylene glycol fatty acid esters.

10. The liquid cleaning agent composition for soil according to any one of claims 1 to 8, wherein the component (A) is a polyoxyethylene alkyl or alkenyl ether in which the alkyl group or alkenyl group has 10 or more and 18 or less carbons and the average number of added moles of the ethylene oxide is 3 or more and 10 or less.

11. The liquid cleaning agent composition for soil according to any one of claims 1 to 10, wherein the component (A) is a nonionic surfactant with an HLB of 8.0 or more and 14.0 or less according to Griffin's method.

12. A method for cleaning soil, wherein contaminated soil is cleaned with the liquid cleaning agent composition for soil according to any one of claims 1 to 11.

13. The method for cleaning soil according to claim 12, wherein the contaminated soil is cleaned with a cleaning liquid obtained by mixing the liquid cleaning agent composition for soil with water.

14. The method for cleaning soil according to claim 13, wherein the cleaning liquid is prepared immediately before cleaning the contaminated soil.

15. The method for cleaning soil according to any one of claims 12 to 14, wherein the liquid cleaning agent composition for soil or the cleaning liquid is poured into the contaminated soil at a predetermined position, passed through the contaminated soil, and thereafter collected at a position different from the predetermined position.

16. The method for cleaning soil according to claim 15, wherein the collection of the composition or the cleaning liquid is performed by a pumping means.

17. The method for cleaning soil according to any one of claims 12 to 14, wherein the method is used for cleaning excavated soil.