In order to reduce the unpleasant odor ascribed to greasy dirt during and after wiping, the cleaning fluid preferably contains a perfume. The perfume for use in the present invention is preferably soluble in the cleaning fluid. Examples of suitable perfumes include perfume components, such as menthol, geraniol, citronellal, citronellol, 1,8-cineol, terpineol, and linalool; and perfume compositions containing a perfume having a rose, lavender, jasmine, or ylang-ylang note. These perfume components and compositions can be used either individually or in combination thereof. The perfume may be in the form of a solution having an adjusted concentration as a result of, for example, dilution with a solvent. The content of the perfume in the cleaning fluid is preferably 0.01 mass% or more, more preferably 0.02 mass% or more, and preferably 1.0 mass% or less, more preferably 0.95 mass% or less.

[0033]

The cleaning fluid may contain additives in addition to the above-mentioned components as long as the effects of the present invention are produced. Examples of the additives include surfactants other than those described above, disinfectants or antiseptics, preservatives, fragrances, deodorants, pH adjustors, chelating agents, viscosity modifiers, and solvents such as alcohols. These additives may be used individually or in combination thereof. The content of each of the additives in the cleaning fluid is preferably 0.001 mass% to 20 mass%.

[0034]

Referring back to the fiber aggregate, the synthetic fibers making up the fiber aggregate preferably include fibers having a flat shape in a transverse cross-section, which will hereinafter be also called “profiled fibers”. The term “flat shape” is defined as follows. The longest dimension of line segments that run across the cross-section is taken as length A, and the longest dimension of line segments that run across the cross-section at right angles with the line segment having the length A is taken as length B. A shape having length A longer than length B is defined to be a flat shape. In short, a profiled fiber has a major axis and a minor axis in cross-section. The profiled fiber for use in the present invention is preferably symmetric about the line segment with the length A.

soluble in the cleaning fluid and is at least one member selected from the group consisting of perfume components, such as menthol, geraniol, citronellal, citronellol, 1,8-cineol, terpineol, and linalool, and perfume compositions containing a perfume having a rose, lavender, jasmine, or ylang-ylang note.

13. The wiping sheet as set forth in any one of clauses 1 to 12, wherein the cleaning fluid contains 0.1 mass% to 0.5 mass% of each of the nonionic surfactants, with the total content of the nonionic surfactants being 0.2 mass% to 1.0 mass%.

14. The wiping sheet as set forth in any one of clauses 1 to 13, wherein the fiber aggregate has a three-dimensional texture composed of raised portions and recessed portions in a macroscopic pattern on at least one side thereof, and the synthetic fibers have a flat cross-sectional shape,

the synthetic fibers present in the recessed portions having their cross-sectional major axis generally parallel with the plane of the wiping sheet, and the synthetic fibers present in the raised portions having their cross-sectional major axis generally parallel with a plane perpendicular to the plane of the wiping sheet.

15. The wiping sheet as set forth in any one of clauses 1 to 14, further including a scrim located in the middle of the thickness of the fiber aggregate.

[0077]

16. The wiping sheet as set forth in any one of clauses 1 to 15, being used to wipe a hard surface.

17. A method for making the wiping sheet as set forth in any one of clauses 1 to 16, including forming a fiber aggregate containing synthetic fibers and impregnating the fiber aggregate with a cleaning fluid by spraying.

18. The method as set forth in clause 17, wherein the fiber aggregate is composed mainly of the synthetic fibers.

19. The method as set forth in clause 17 or 18, wherein the fiber aggregate has a synthetic fiber content of at least 50 mass%, preferably 60 mass% or higher, even more preferably 70 mass% or higher, in a dry state.

20. The method as set forth in any one of clauses 17 to 19, wherein the cleaning fluid contains an additive.

21. The method as set forth in clause 20, wherein the additive is at least one member selected from the group consisting of disinfectants, antiseptics, fragrances, deodorants, pH adjustors, chelating agents, viscosity modifiers, and solvents, such as alcohols.

CLAIMS

1. A wiping sheet comprising a fiber aggregate containing synthetic fibers and impregnated with a cleaning fluid,

the fiber aggregate having a dry basis weight of 50 g/m^2 to 100 g/m^2,

the cleaning fluid comprising at least two nonionic surfactants having different HLB values, one of the surfactants having an HLB value of from 12 to less than 15, and the other surfactant having an HLB value of from 15 to 18, and

the cleaning fluid being present in an amount of 205 g/m^2 to 380 g/m^2.

2. The wiping sheet according to claim 1, wherein one of the surfactants has an HLB value of 12.5 to 14.5.

3. The wiping sheet according to claim 1 or claim 2, wherein the other surfactant has an HLB value of 15.5 to 17.5.

4. The wiping sheet according to any one of claims 1 to 3, wherein one of the surfactants is a polyoxyethylene alkyl ether comprising at least one of polyoxyethylene lauryl ether (HLB value: 12.1 – 14.9), polyoxyethylene cetyl ether (HLB value: 12.9 – 14.3), polyoxyethylene stearyl ether (HLB value: 12.8 – 13.9), and polyoxyethylene oleyl ether (HLB value: 12.1 – 13.6).

5. The wiping sheet according to any one of claims 1 to 4, wherein the other surfactant is a polyoxyethylene sorbitan fatty acid ester comprising at least one of polyoxyethylene sorbitan monopalmitate (HLB value: 15.6) and a polyoxyethylene sorbitan coconut oil fatty acid ester (HLB value: 15.0 – 16.7).

6. The wiping sheet according to any one of claims 1 to 5, wherein the cleaning fluid further comprises an amphoteric surfactant.

7. The wiping sheet according to any one of claims 1 to 6, wherein the cleaning fluid as released from the wiping sheet has a pH of 7.8 to 9.0 at 25°C, a viscosity of 2

mPa·s to 10 mPa·s at 25°C, and a surface tension of 25 mN/m to 35 mN/m.

8. The wiping sheet according to any one of claims 1 to 7, wherein the cleaning fluid further comprises a perfume.

9. The wiping sheet according to any one of claims 1 to 8, wherein the fiber aggregate has a three-dimensional texture comprising raised portions and recessed portions in a macroscopic pattern on at least one side thereof, and the synthetic fibers have a flat cross-sectional shape,

the synthetic fibers present in the recessed portions having their cross-sectional major axis generally parallel with the plane of the wiping sheet, and the synthetic fibers present in the raised portions having their cross-sectional major axis generally parallel with a plane perpendicular to the plane of the wiping sheet.

10. A method for making the wiping sheet according to any one of claims 1 to 9, comprising the steps of forming a fiber aggregate containing mainly synthetic fibers and impregnating the fiber aggregate with a cleaning fluid by spraying.