the treatment space strongly feels the fragrant smell of the chemical agent particles, and particularly, a consumer who does not like strong fragrant smells is likely to have an unpleasant feeling.

[0006]

With the above problem in mind, the present invention has been made. Embodiments of the present invention seek to provide a deodorizing aerosol that can exert a highly fast-acting and long-lasting deodorizing effect in a treatment space, such as a toilet room.

SOLUTION TO PROBLEM

[0007]

According to an aspect of the present invention, there is provided a deodorizing aerosol comprising: a pressure-resistant container equipped with a metering spray valve, the container containing a liquid aerosol-forming material including a deodorizing component and an organic solvent, and a propellant; and a spray button having a spray outlet connected to the metering spray valve. The deodorizing aerosol is adjusted so that the spray volume by pushing the spray button once is 0.2-0.4 mL, and the spray force of the liquid aerosol-forming material sprayed by pushing the spray button once is 0.3-10.0 g·f as measured at a distance of 20 cm from the spray outlet at 25°C, the sprayed particles formed by pushing the spray button and thereby spraying the liquid

aerosol-forming material in the pressure-resistant container, preferably have a particle size of 40-60 μm as measured at a distance of 15 cm from the spray outlet at 25°C, where the particle size is a d90 particle size in a cumulative volume distribution of the sprayed particles, and the volume ratio (a/b) of the liquid aerosol-forming material (a) to the propellant (b) contained in the pressure-resistant container is preferably 10/90-50/50.

treatment space can be improved. In addition, even when sprayed particles (referred to as "suspendable particles") other than the adhesive particles are diffused throughout the treatment space, the concentration of the liquid aerosol-forming material in the treatment space is proportionately reduced by the adhesive particles. Therefore, a user in the treatment space inhales a very small amount of particles of the liquid aerosol-forming material, and can be inhibited from feeling an excessive fragrant smell from the liquid aerosol-forming material itself. In addition, the deodorizing aerosol of the present invention is adjusted so that the spray volume obtained by pushing the spray button once is 0.1–0.4 mL, and the spray force is 0.3–10.0 g·f as measured at a distance of 20 cm at 25°C. By thus adjusting the spray volume and spray force, adhesive particles having a suitable size can be formed, resulting in a superior deodorizing effect in a treatment space such as a toilet room.

[0009]

[0010]

By adjusting the particle sizes of the sprayed particles to the above optimum range, a portion of the sprayed particles are adhesive particle, and the other are suspendable particles. Therefore, according to the deodorizing aerosol having this feature, both an odor floating in the air of the treatment space and an odor generated from an odor source sticking to an exposed portion can be eliminated.

[0011]

[0012]

According to the deodorizing aerosol having this feature, in the case where the volume ratio (a/b) of the liquid aerosol-forming material (a) to the propellant (b) is in the above range, the adhesive particles and suspendable particles formed of the sprayed liquid aerosol-forming material are optimally balanced. As a result, the adhesive particles can reliably reach an exposed portion in the treatment space, and the suspendable particles can float in the treatment space in an amount that does not produce an excessive fragrant smell which causes an unpleasant feeling. Thus, the adhesive particles and the suspendable particles are present in their respective optimum state and play their

CLAIMS

1. A deodorizing aerosol comprising:

a pressure-resistant container equipped with a metering spray valve, the container containing a liquid aerosol-forming material including a deodorizing component and an organic solvent, and a propellant; and

a spray button having a spray outlet connected to the metering spray valve,

wherein

the deodorizing aerosol is adjusted so that the spray volume by pushing the spray button once is 0.2-0.4 mL, and the spray force of the liquid aerosol-forming material sprayed by pushing the spray button once is 0.3-10.0 g·f as measured at a distance of 20 cm from the spray outlet at 25°C,

the sprayed particles formed by pushing the spray button and thereby spraying the liquid aerosol-forming material in the pressure-resistant container, have a particle size of 40-60 μm as measured at a distance of 15 cm from the spray outlet at 25°C, where the particle size is a d90 particle size in a cumulative volume distribution of the sprayed particles,and

the volume ratio (a/b) of the liquid aerosol-forming material (a) to the propellant (b) contained in the pressure-resistant container is 10/90-50/50.

2. The deodorizing aerosol of claim 1, wherein

the organic solvent is at least one selected from the group consisting of fatty acid esters having a total of 16–20 carbon atoms and alcohols.

3. The deodorizing aerosol of claim 1 or 2, wherein

the deodorizing component includes a plant extract and a harmonized fragrance.

4. The deodorizing aerosol of any one of claims 1–3, wherein

the spray outlet has an inner diameter of 0.2–1.0 mm.

5. The deodorizing aerosol of any one of claims 1–4, wherein

the liquid aerosol-forming material further includes leaf alcohol and/or leaf aldehyde.

6. The deodorizing aerosol of any one of claims 1–5, wherein

the sprayed liquid aerosol-forming material is diffused throughout the treatment space in 120 seconds or less.

7. The deodorizing aerosol of any one of claims 1–6,

wherein

the concentration of the liquid aerosol-forming material in the air reaches 0.0007 ppm or more in 95% or more of the treatment space, in 120 seconds or less after spraying.

8. The deodorizing aerosol of any one of claims 1-7, wherein the treatment space is a toilet room.