polyolefins such as polyethylene and polypropylene; sodium metasilicate; silica gel; quartz; polylactic acid; polycaprolactone; polyhydroxyalkanoate; polyglycolic acid; polybutylene succinate; modified polyvinyl alcohol; casein; modified starch; polyhydroxyalkanoic acids such as polyhydroxybutyric acid; polysaccharide derivatives such as cellulose and acetylcellulose; and minerals such as zeolite.

[0042] The carrier or container which the sustained release agent comprises is not particularly limited as long as it is capable of at least sustainedly releasing the compound physiologically active on an ant belonging to the Myrmicinae. Examples of the carrier and container include a polymer carrier, a metal carrier, a polymer container and a metal container.

The container may be a sealed or rope-like container comprising such a polymer membrane as at least a part of the container (including the whole of the container) that at least one compound physiologically active on an ant belonging to the Myrmicinae, particularly a highly volatile alarm pheromone compound, can permeate through the polymer membrane to release the compound outside of the container, such as a field, at an appropriate rate. On the other hand, when the container is the spray container made of a material which does not allow a compound physiologically active on an ant belonging to the Myrmicinae to permeate through the spray container, the spray container comprises an opening. The material of the spray container is not particularly limited. Examples of the material include natural rubbers such as cis-polyisoprene; synthetic rubbers such as isoprene rubber and butadiene rubber, and acrylonitrile-butadiene rubber (NBR); polyolefins such as polyethylene and polypropylene; copolymers containing 80% by mass or more of ethylene monomer units such as a ethylene-vinyl acetate copolymer and an ethylene-acrylate copolymer: biodegradable polymers such as polylactic acid, polycaprolactone,

CLAIMS

1. A composition comprising:

at least one alarm pheromone compound contained in an alarm pheromone composition of an ant belonging to Myrmicinae, and

at least one hydrocarbon compound having 19 to 50 carbon atoms and being physiologically active on the ant,

wherein the alarm pheromone compound is at least one selected from the group consisting of a ketone compound having 7 to 11 carbon atoms and an alcohol compound having 7 to 11 carbon atoms, and the hydrocarbon compound is at least one contained in a hydrocarbon composition present on a body surface of the ant.

2. The composition according to claim 1, wherein the alarm pheromone compound is 3-octanone and/or 4-methyl-3-nonanone.

3. The composition according to claim 1, wherein the hydrocarbon compound is selected from the group consisting of nonadecane, (9Z)-9-nonadecene, (9Z)-9-nonacosene, icosane, henicosane, docosane, tricosane, tetracosane, pentacosane, hexacosane, heptacosane, octacosane, nonacosane, triacontane, hentriacontane, 9-methyltriacontane, dotriacontane, 9-methylhentriacontane, 7,11-dimethyltriacontane, tritriacontane, 9-methyldotriacontane, 3,5-dimethylhentriacontane, 3,7,11-trimethyltriacontane, 3,7,11-trimethyldotriacontane, tetratriacontane, 9-methyltritriacontane, 3,7,11-trimethylhentriacontane, pentatriacontane, 4,8,12-trimethyldotriacontane, hexatriacontane, 3,7,11-trimethyltritriacontane, 4,8,12-trimethyltritriacontane, 3,7,11-trimethyltetratriacontane, heptatriacontane, 4,8,12-trimethyltetratriacontane, octatriacontane, 3,7,11-trimethylpentatriacontane, 4,8,12-trimethylpentatriacontane, nonatriacontane, 4,8,12-trimethylhexatriacontane, tetracontane, hentetracontane, 7,11-dimethylnonatriacontane, dotetracontane, tritetracontane, tetratetracontane, pentatetracontane, hexatetracontane, heptatetracontane, octatetracontane, nonatetracontane and pentacontane.

4. An agent to be used for controlling an ant belonging to Myrmicinae, the agent comprising:

the composition according to any one of claims 1 to 3, and

a container containing the composition therein or a carrier carrying the composition.

5. The agent according to claim 4, comprising the container which is a closed container, wherein at least a part of the container comprises such a polymer membrane that the alarm pheromone compound can permeate through the membrane.

6. The agent according to claim 4, comprising the container which is an aerosol sprayer for generating an aerosol of the composition.

7. The agent according to claim 4, comprising no insecticidal component.

8. A method to be used for controlling an ant belonging to Myrmicinae, by using the agent according to claim 4.

9. The method according to claim 8, comprising a step of installing the agent in an area or field to be protected from the ant, around an object to be protected from the ant, or around a colony of the ant, to release the alarm pheromone compound from the agent.

10. The method according to claim 8, comprising steps of:

installing the agent comprising the container which is a closed container wherein at least a part of the container comprises such a polymer membrane that the alarm pheromone compound can permeate through the membrane, in an area or field to be protected from the ant to release the alarm pheromone from the container; and

bringing the ant into contact with a surface of the container on which the hydrocarbon compound having permeated through the polymer membrane is present, or allowing the ant to break the container, so as to attach the hydrocarbon compound to the ant.

11. The method according to claim 8, comprising a step of spraying the composition from the agent comprising the container which is an aerosol sprayer for generating an aerosol of the composition, into a colony of the ant to bring the ant into contact with the composition.

12. The method according to claim 8, wherein no insecticide is used.