WHAT IS CLAIMED IS:

1. A biodegradable composite, comprising:

an organic matter accounting for 40% to 80% of a weight of the biodegradable composite, wherein the organic matter comprises viable bacteria and has a total plate count that is greater than or equal to 10^4 CFU/g; and

a porous material accounting for 20% to 60 % of the weight of the biodegradable composite,

wherein the organic matter is solid, wherein the biodegradable composite is adapted to decompose waste or residue to form compost and deodorize.

2. The biodegradable composite as claimed in claim 1, wherein the porous material is selected from a group consisting of activated carbon, eggshell powder, shell powder, bamboo charcoal powder, and a combination thereof.

3. The biodegradable composite as claimed in claim 1, wherein a weight ratio of the organic matter to the porous material is ranged from 0.6:1 to 1.2:1.

4. The biodegradable composite as claimed in claim 1, wherein the porous material has a plurality of pores, and the organic matter is filled into the plurality of pores; in per gram of the biodegradable composite, each of the plurality of pores of the porous material averagely contains 800 CFU to 1200 CFU of the viable bacteria.

5. The biodegradable composite as claimed in claim 1, wherein the viable bacteria are selected from a group consisting of thermoduric bacteria, Bacillus coagulans, Bacillus subtilis, Bacillus thuringiensis, Pseudomonas putida, Actinobacteria, and a combination thereof.

6. A product adapted to contact a biological substrate, comprising:

a biodegradable composite comprising an organic matter having viable bacteria and a porous material, wherein the organic matter accounts for 40% to 80% of a weight of the biodegradable composite, and a total plate count of the organic matter is greater than or

equal to 10^4 CFU/g; the porous material accounts for 20% to 60 % of the weight of the biodegradable composite; the biodegradable composite accounts for less than or equal to 10% of a weight of the product; and

a biodegradable plastic that is decomposable by biological activities and contacts with the biodegradable composite,

wherein the organic matter is solid.

7. The product as claimed in claim 6, wherein the biodegradable plastic comprises polylactic acid.

8. The product as claimed in claim 6, wherein the biodegradable plastic is mixed with the biodegradable composite.

9. The product as claimed in claim 6, wherein the biodegradable plastic covers the biodegradable composite.

10. The product as claimed in claim 6, wherein the biodegradable plastic encapsulates a part of the biodegradable composite, and the rest part of the biodegradable composite is attached to the biodegradable plastic.

11. The product as claimed in claim 6, wherein the product comprises a filter, a packaging material, a paper material, a cladding material, a package, a cladding structure, or a combination thereof.

12. The product as claimed in claim 6, comprising an identification code.

13. The product as claimed in claim 6, wherein during a recycling process of the product, additional biodegradable composite is added to the recycled product to allow the recycled product to be decomposed by the biodegradable composite to form a biobased compost.