Claims

1. Method for the control of odour by contacting surface-reacted calcium carbonate with odourants, wherein the surface-reacted calcium carbonate is a reaction product of natural ground or precipitated calcium carbonate with carbon dioxide and one or more acids in an aqueous medium, wherein the carbon dioxide is formed in situ by the acid treatment and/or is supplied from an external source.

2. Method according to claim 1,
characterized in that the natural ground calcium carbonate is selected from calcium carbonate containing minerals selected from the group comprising marble, chalk, dolomite, limestone and mixtures thereof; and that the precipitated calcium carbonate is selected from the group comprising precipitated calcium carbonates having aragonitic, vateritic or calcitic mineralogical crystal forms or mixtures thereof.

3. Method according to any one of claims 1 or 2,
characterized in that the surface-reacted calcium carbonate is in the form of a powder and/or granules, suspension and/or gels, preferably in the form of a powder and/or granules.

4. The process according to any one of the preceding claims,
characterised in that the surface-reacted calcium carbonate has a specific surface area of from 1 m^2/g to 200 m^2/g, preferably 40 m^2/g to 175 m^2/g, more preferably 50 to 145 m^2/g, especially preferably 60 m^2/g to 90 m^2/g, most preferably 70 m^2/g to 80 m^2/g, measured using nitrogen and the BET method according to ISO 9277.

5. The process according to any one of the preceding claims,
characterised in that the surface-reacted calcium carbonate particles have a volume median grain diameter d_{50} of from 0.1 to 50 μm, preferably from 0.5 to 25 μm, more preferably 0.8 to 20 μm, particularly 1 to 10, e.g. 4 to 7 μm.

6. The process according to any one of the preceding claims, **characterized in that** the surface-reacted calcium carbonate has an intra-particle intruded specific pore volume within the range of 0.150 to 1.300 cm^3/g, and preferably of 0.178 to 1.244 cm^3/g, calculated from a mercury intrusion porosimetry measurement.

7. The process according to any one of the preceding claims, **characterised in that** the surface reacted calcium carbonate is in the form of granules having a volume median granule size of from 0.1 – 6 mm, preferably from 0.2 – 5 mm, more preferably from 0.3 to 4 mm, especially preferably from 0.3 to 0.6 mm or 1 mm to 4 mm, most preferably from 0.6 to 1 mm or 1 to 2 mm determined by sieve fractioning.

8. The method according to any one of the preceding claims, **characterized in that** the surface reacted calcium carbonate is in the form of granules having a specific surface area of from 1 to 175 m^2/g, preferably of from 2 to 145 m^2/g, more preferably 10 to 100 m^2/g, especially preferably of from 20 to 70 m^2/g, most preferably of from 30 to 40 m^2/g, measured using nitrogen and the BET method according to ISO 9277.

9. Method according to any one of the preceding claims, **characterized in that** the odourants are selected from the group comprising odourants contained in human and animal body liquids and secretion such as menses, blood, plasma, sanies, vaginal secretions, mucus, milk, urine, feces, vomit; and perspiration; odourants originating from putrefaction such as of human or animal tissue; food such as dairy products, meat and fish; fruit; textiles; furniture; car interiors; and walling.

10. Method according to any one of the preceding claims, **characterized in that** the odourants are selected from the group comprising amines such as triethylamine, diethylamine, trimethylamine, diaminobutane, tetramethylenediamine, pentamethylenediamine, pyridine, indole, 3-methylindole; carboxylic acids such as propionic acid, butanoic acid, 3-methylbutanoic acid, 2-methylpropanoic acid, hexanoic acid; sulphur organic compounds such as thiols, e.g. methanethiol, phosphor organic compounds such as methylphosphine, dimethylphosphine; their derivatives and mixtures thereof.

11. Method according to any one of the preceding claims, **characterized in that** the surface reacted calcium carbonate is used in diapers, feminine hygiene products such as pads, panty liners, sanitary napkins and tampons; incontinence products; deodorant formulations; paper towels, bath tissue and facial tissue; nonwoven products such as wipes and medical products; packaging material, preferably plastic, paper or board packaging material, such as wrapping papers, packaging boards; mono and multilayer structures; permeable bags; adsorption pads; paper products, preferably paper sheets, filled and/or coated with surface-reacted calcium carbonate with or without adhesive layer; animal litter; construction and building material; preparations of compost and organic fertilizers.

12. Use of the surface-reacted calcium carbonate as defined in any one of claims 1 to 8 for the control of odour.

13. Product for the control of odour, characterized in that it contains surface reacted calcium carbonate as defined in any one of claims 1 to 8 for the control of odour, wherein the surface-reacted calcium carbonate is a reaction product of natural ground or precipitated calcium carbonate with carbon dioxide and one or more acids in an aqueous medium, wherein the carbon dioxide is formed in situ by the acid treatment and/or is supplied from an external source; and

wherein the product is selected from diapers, feminine hygiene products such as pads, panty liners, sanitary napkins and tampons; incontinence products; deodorant formulations; nonwoven products such as wipes and medical products; plastic packaging material; mono and multilayer structures; permeable bags; adsorption pads; animal litter; construction and building material; preparations of compost and organic fertilizers.