

CLAIMS

1. A fibrous product comprising a fibrous material, wherein said fibrous material comprises lactic acid and/or a salt thereof in an amount of from about 0.1 to about 15 g/m², such as from about 0.3 g to about 10 g/m², from about 0.3 to about 5 g/m², from about 0.5 to about 5 g/m², from about 1.0 to about 3.0 g/m², from about 1.0 to about 2.5 g/m², from about 1.0 to about 2.0 g/m², or from about 1.0 to about 1.5 g/m².
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2. The fibrous product according to claim 1, wherein the water activity of said fibrous product is from about 0.03 to about 0.85, such as from about 0.05 to about 0.85, from about 0.1 to about 0.85, from about 0.03 to about 0.75, from about 0.05 to about 0.75, from about 0.1 to about 0.75, from about 0.03 to about 0.65, from about 0.05 to about 0.65 or from about 0.1 to about 0.65.
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3. The fibrous product according to claim 1 or 2, wherein said salt of lactic acid is sodium lactate, potassium lactate and/or calcium lactate.
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4. The fibrous product according to any one of the preceding claims, wherein said fibrous material comprising lactic acid and/or a salt thereof further comprises one or more pH regulating substances, such as NaOH or KOH.
5. The fibrous product according to any one of the preceding claims, wherein said fibrous product is a hand towel, handkerchief, facials, dry wipe, napkin, washcloth, cleaning cloth, household towel, wiping tissue or toilet paper.
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6. The fibrous product according to any one of the preceding claims, wherein said fibrous product is a tissue paper product, a nonwoven product or a mixed tissue paper and nonwoven product.
- 25 7. The fibrous product according to any one of the preceding claims, wherein said fibrous product has a pH of from about 6.5 or less, such as a pH of from about 2.5 to about 6.5, from about 3.0 to about 6.0, from about 3.0 to about 5.5, from about 3.0 to about 5.0, from about 3.0 to about 4.5, from about 3.0 to about 4.0, or from about 3.0 to about 3.5.
- 30 8. The fibrous product according to any one of the preceding claims wherein said fibrous product has a flexibility increase of at least about 10% measured as a D-value, compared to the same fibrous material without lactic acid and/or a salt thereof.

9. The fibrous product according to any one of the preceding claims, wherein said lactic acid and/or a salt thereof is provided to at least one of the outer surfaces of the fibrous product.
10. The fibrous product according to any one of the preceding claims, wherein
5 said fibrous product is a multi-ply product.
11. The fibrous product according to any one of claims 1-9, wherein said fibrous product is a one-ply product.
12. A method for producing a fibrous product comprising a fibrous material wherein said fibrous material comprises lactic acid and/or a salt thereof in an
10 amount of from about 0.1 to about 15 g/m², such as from about 0.3 g to about 10 g/m², from about 0.3 to about 5 g/m², from about 0.5 to about 5 g/m², from about 1.0 to about 3.0 g/m², from about 1.0 to about 2.5 g/m², from about 1.0 to about 2.0 g/m², or from about 1.0 to about 1.5 g/m², and wherein said fibrous product has a water activity of about 0.85 or less, said
15 method comprising the steps of:
- a) providing a fibrous material;
 - b) providing a composition comprising lactic acid and/or a salt thereof to said fibrous material, wherein said composition comprising lactic acid and/or a salt thereof; and
 - 20 c) drying said fibrous material provided with said composition comprising lactic acid and/or a salt thereof to provide a fibrous product.
13. The method according to claim 12, wherein said composition comprising lactic acid and/or a salt thereof is provided to said fibrous material by coating, such as by slot-dye coating, printing, roll coating or spraying.
- 25 14. The method according to claim 12 or 13, wherein said drying of said fibrous material is performed by air drying or IR drying.
15. The method according to any one of claims 12-14, wherein said fibrous product is a fibrous product as defined in any one of claims 1-11.
16. The method according to any one of claims 12-15, wherein in step b) the
30 composition comprising lactic acid and/or a salt thereof is provided to at least one of the outer surfaces of the fibrous product.
17. A fibrous product obtainable or obtained by the method of any one of claims 12-16.
18. Use of lactic acid and/or a salt thereof for improving the softness of a fibrous
35 material.

19. Use according to claim 18, wherein said fibrous material has a flexibility increase of at least about 10%, measured as a D-value, as compared to the same fibrous material without lactic acid and/or a salt thereof.
- 5 20. Use of a fibrous product as defined in any one of claims 1-11 for reducing the pH of the skin of a user of said fibrous product, such as by at least 0.5 pH units.
21. A method for improving the softness of a fibrous material, said method comprising the steps of:
- 10 a) providing a fibrous material;
- b) providing a composition comprising lactic acid and/or a salt thereof to said fibrous material; and
- c) drying said fibrous material to a water activity of about 0.85 or less to provide a fibrous product having an improved softness.
- 15 22. The method according to claim 21, wherein said fibrous material has a flexibility increase of at least about 10%, measured as a D-value, as compared to the same fibrous material without lactic acid and/or a salt thereof.