

CLAIMS

1. Process for the manufacture of an aqueous solution of a salt of an alkanedicarboxylic acid of 6 to 12 carbon atoms and an alkane diamine of 6 to 12 carbon atoms comprising the following process steps:
 - 5 (a) mixing an alkanedicarboxylic acid of 6 to 12 carbon atoms with an alkane diamine of 6 to 12 carbon atoms to prepare a pre-salt aqueous solution having a molar ratio of the alkanedicarboxylic acid to alkane diamine of 1.5 or higher and containing
 - 10 i. more than 65 wt.-% and up to 85 wt.-% of the salt of alkanedicarboxylic acid and alkane diamine, based on the sum of the weight of said salt and water present in the pre-salt aqueous solution,
 - ii. 75 wt.-% to 93 wt.-% of dissolved species, based on the total weight of the pre-salt aqueous solution, and
 - 15 iii. free alkanedicarboxylic acid;and
 - (b) adding a sufficient amount of an alkane diamine of 6 to 12 carbon atoms to the pre-salt aqueous solution obtained in process step (a) to obtain the final aqueous solution of salt of alkanedicarboxylic acid and alkane diamine
20 having a molar ratio of alkanedicarboxylic acid to alkane diamine of from 0.9 to 1.1.
2. The process of claim 1, wherein the concentration of free alkanedicarboxylic acid in the pre-salt aqueous solution of step (a) is from 30 to 50 wt.-%, based
25 on the total weight of the pre-salt aqueous solution.
3. The process of claim 1 or 2, wherein the molar ratio of alkanedicarboxylic acid to alkane diamine in the pre-salt aqueous solution is higher than 1.9 and lower than 3.8.

4. The process of any one of the preceding claims, wherein process step (a) is carried out at a temperature between 60 and 130 °C.
5. The process of any one of the preceding claims, wherein, before and/or during process step (b), no concentration of the pre-salt aqueous solution and/or the solution containing the pre-salt aqueous solution and the additional diamine of process step (b) is carried out.
6. The process of any one of the preceding claims, wherein process step (b) is controlled by measuring the pH value of the solution containing the pre-salt aqueous solution and the additional diamine of process step (b).
7. The process of any one of the preceding claims, wherein process step (b) is carried out at a pressure of 0.25 to 0.55 MPa and a temperature of 150 to 180°C.
8. The process of any one of the preceding claims, wherein the diamine used in process step (a) and the diamine used in process step (b) are identical chemical compounds.
9. The process of any one of the preceding claims, wherein the final aqueous salt solution contains the salt of the alkanedicarboxylic acid and alkane diamine in an amount of more than 80 % wt.-% and up to 95 % wt.-%, based on the total weight of the dissolved species in the salt solution.
10. The process of any one of the preceding claims, wherein the alkanedicarboxylic acid is adipic acid, and the alkane diamine is hexamethylenediamine.
11. The process of any one of the preceding claims, wherein the pre-salt aqueous solution obtained in process step (a) is stored and/or transported before process step (b) is carried out.

12. A process for the manufacture of a polyamide of AABB type, wherein AA is an alkanedicarboxylic acid of 6 to 12 carbon atoms and BB is an alkane diamine of 6 to 12 carbon atoms, wherein
at first an aqueous solution of a salt of an alkanedicarboxylic acid and an
5 alkane diamine is prepared according to the process of any one of claims 1 to 11 and afterwards a polycondensation reaction is carried out using the above aqueous solution as a starting material.
13. The process according to claim 12, wherein the produced polyamide is
10 polyamide 66.
14. A pre-salt aqueous solution of an alkanedicarboxylic acid of 6 to 12 carbon atoms and an alkane diamine of 6 to 12 carbon atoms, wherein the pre-salt aqueous solution has a molar ratio of alkanedicarboxylic acid to alkane
15 diamine of 1.5 or higher and contains
- i. more than 65 wt.-% and up to 85 wt.-% of the salt of alkanedicarboxylic acid and alkane diamine, based on the sum of the weight of said salt and water present in the pre-salt aqueous solution,
 - 20 ii. 75 wt.-% to 93 wt.-% of dissolved species, based on the total weight of the pre-salt aqueous solution, and
 - iii. free alkanedicarboxylic acid.
15. The use of the pre-salt aqueous solution according to claim 14 in a process
25 for the manufacture of an aqueous solution of a salt of an alkanedicarboxylic acid of 6 to 12 carbon atoms and an alkane diamine of 6 to 12 carbon atoms having a molar ratio of alkanedicarboxylic acid to alkane diamine of from 0.9 to 1.1.