CLAIMS

1. Process for preparing N-methyl(meth)acrylamide,
characterized in that
a) (meth)acrylic anhydride is reacted with methylamine,
b) the methylamine has a water content of < 10% by weight,
c) the stoichiometry of (meth)acrylic anhydride:amine is within the range of 1:less than 2 to 1:1.

2. Process according to Claim 1, characterized in that the water content of the methylamine is less than 5% by weight, preferably less than 1% by weight and most preferably < 0.1% by weight.

3. Process according to Claim 1, characterized in that the water content after the end of addition of all reactants is less than 10% by weight.

4. Process according to Claim 3, characterized in that the water content after the end of addition of all reactants is less than 5% by weight, preferably less than 1% by weight and most preferably < 0.1% by weight.

5. Process according to Claim 1, characterized in that the reaction is conducted in a polar aprotic solvent.

6. Process according to Claim 1, characterized in that the methylamine is added as a pure substance, in liquid or gaseous form.

7. Process according to Claim 1, characterized in that methylamine is added as a gas.

8. Process according to Claim 1, characterized in that the stoichiometry of (meth)acrylic anhydride:amine is 1:1.

9. Process according to Claims 1 to 8, characterized in that the (meth)acrylic acid by-product is removed or separated by distillation.

10. Process according to Claims 1 to 9, characterized in that the (meth)acrylic anhydride is reacted with methylamine at temperatures between -20°C and 100°C, preferably between 0°C and 80°C and more preferably between 20°C and 50°C.

11. Process according to Claims 1 to 10, characterized in that the (meth)acrylic anhydride is reacted with methylamine at an absolute pressure of 0.5 bar to 10 bar, preferably 1 bar to 5 bar.