CLAIMS

1. Process for the preparation of polymorph form **B** of treprostinil diethanolamine salt comprising the following steps:

a. treprostinil is dissolved in methanol,
b. to the solution of step a) diethanolamine or its solution in methanol is added,
c. the reaction mixture of step b) is agitated till dissolution,
d. after completion of salt formation in step c) a first portion of aprotic solvent is added to the solution,
e. the solution of step d) is filtered,
f. the filtrate of step e) is seeded with polymorph form **B** of treprostinil diethanolamine salt,
g. to the crystal suspension obtained in step f), a second portion of the aprotic solvent is added,
h. the suspension of step g) is agitated until crystallisation is completed,
i. the crystals are separated, washed and dried,

wherein the aprotic solvent is selected from ethers, ketones, esters, and acetonitrile.

2. Process according Claim 1. characterized in that dissolution of treprostinil and diethanolamine is carried out at 25-50°C.

3. Process according to Claim 2. characterized in that dissolution of treprostinil and diethanolamine is carried out at 30-40°C.

4. Process according to any of Claims 1 to 3. characterized in that methyl *tertiary*-butyl ether, diisopropyl ether, acetone, ethyl acetate, or acetonitrile are applied as aprotic solvent.

5. Process according Claim 4. characterized in that methyl *tertiary*-butyl ether is applied as aprotic solvent.

6. Process for the transformation of polymorph form **A** or the mixture of polymorph forms **A** and **B** of treprostinil diethanolamine salt into polymorph form **B** of treprostinil diethanolamine salt, comprising the following steps:

a. treprostinil diethanolamine salt is dissolved in methanol,
b. to the solution of step a) first portion of aprotic solvent is added,
c. the solution of step b) is filtered,
d. the filtrate of step c) is seeded with polymorph form **B** of treprostinil diethanolamine salt,
e. to the crystal suspension obtained in step d), a second portion of the aprotic solvent is added,
f. the suspension of step e) is agitated until crystallisation is completed,

g. the crystals are separated, washed and dried

wherein the aprotic solvent is selected from ethers, polar ketones, esters, and acetonitrile.

7. Process according Claim 6. characterized in that methyl *tertiary*-butyl ether, diisopropyl ether, acetone, ethyl acetate, or acetonitrile are applied as aprotic solvent.

8. Process according Claim 7. characterized in that methyl *tertiary*-butyl ether is applied as aprotic solvent.

9. Process according any of Claims 6 to 8. characterized in that dissolution of treprostinil diethanolamine salt is performed at 25-50°C.

10. Process according Claim 9. characterized in that dissolution of treprostinil diethanolamine salt is performed at 30-40°C.