CLAIMS

1. A single continuous process of insulin or insulin analogues crystal separation, washing and drying aided by pressure filtration comprising the below steps:

a) Preparing crystal suspension of insulin and insulin analogues using $ZnCl_2$ and pH adjustment between 4.5 and 8.5;

b) Pouring the suspension obtained from step a) on filter fabric placed on area ranging between $80cm^2$ to $100cm^2$ of pressure filtration unit;

c) Purging nitrogen gas via inlet port of pressure filtration unit;

d) Collecting filtrate via outlet port of pressure filtration unit;

e) Pouring 100% organic solvent onto the suspension of Step 'b' and repeating Step 'c', and further repeating Step 'e' for multiple cake washes;

f) Drying by passing nitrogen gas at a pressure range of 1 bar to 2.5 bar;

g) Removal of dried cake in form of dried powder,

wherein the 100% organic solvent is selected from acetonitrile, butanol, ethanol, ethyl acetate and isopropanol.

2. The single continuous process of claim 1, wherein insulin or insulin analogues have crystal size in the range of 1-40µm.

3. The single continuous process of claim 1, wherein temperature is maintained in the range of 25^0 to 35^0C.

4. The single continuous process of claim 1, wherein pressure filtration unit has filter membrane with pore size in the range of 1-15µm.

5. The single continuous process of claim 1, wherein the single continuous pressure filtration process of crystallization of insulin or insulin analogues is completed within 5 to 10 minutes.

6. The single continuous process of claim 1, wherein the fabric filter is placed on SS mesh support of pressure filtration unit.

7. The single continuous process of claim 6, wherein the fabric filter is selected from poly ester fabric and poly propylene fabric.

8. The process of claim 1, wherein the volume of the 100% organic solvent is 5-10% of the volume of crystal suspension.

9. The process of claim 1, wherein the 100% organic solvent is acetonitrile.