6. The process of any of claims 1 to 5, wherein the molar ratio of potassium comprised in the at least one potassium salt of a phosphorus oxyacid relative to hydrogen peroxide in the liquid feed stream provided in (i) is in the range of from $25x10^{-6}$:1 to $250x10^{-6}$:1, preferably from $50x10^{-6}$:1 to $200x10^{-6}$:1, more preferably from $100x10^{-6}$:1 to $150x10^{-6}$:1.

7. The process of any of claims 1 to 6, wherein the liquid feed stream provided in (i) contains ammonium NH_4^+ in amount of at most 2 weight-ppm, preferably at most 1 weight-ppm.

8. The process of any of claims 1 to 7, wherein the liquid feed stream provided in (i) contains sodium in a molar ratio of sodium relative to hydrogen peroxide in the range of from $1x10^{-6}$:1 to $250x10^{-6}$:1, preferably from $5x10^{-6}$:1 to $50x10^{-6}$:1.

9. The process of any of claims 1 to 8, wherein the liquid feed stream provided in (i) comprises
the acetonitrile in amount of from 60 to 75 weight-%, preferably from 60 to 65 weight-%, based on the total weight of the liquid feed stream;
the hydrogen peroxide in an amount of from 6 to 10 weight-%, preferably from 7 to 9 weight-%, based on the total weight of the liquid feed stream;
the propene with a molar ratio of propene relative to hydrogen peroxide comprised in the liquid feed stream in the range of from 1:1 to 1.5:1, preferably from 1.1:1 to 1.4:1; and
optionally the propane with a molar ratio of propane relative to the sum of propene and propane in the range of from 0.0001:1 to 0.15:1, preferably from 0.001:1 to 0.05:1;
wherein at least 95 weight-%, preferably from 95 to 100 weight-%, more preferably from 98 to 100 weight-% of the liquid feed stream provided in (i) consist of propene, hydrogen peroxide, acetonitrile, water, the at least one dissolved potassium salt of a phosphorus oxyacid, and optionally propane.

~~10. The process of any of claims 1 to 9, wherein in (i), the liquid feed stream is provided by combining a stream comprising hydrogen peroxide, a stream comprising acetonitrile and optionally water, and a stream comprising propene and optionally propane, wherein an aqueous stream comprising the at least one dissolved potassium salt of a phosphorus oxyacid is combined with the stream comprising hydrogen peroxide, or with the stream comprising acetonitrile and optionally water, or with the stream comprising propene and optionally propane, or with a mixed stream of two or three of these streams, preferably with the stream comprising hydrogen peroxide, or with the stream comprising acetonitrile and optionally water, or with a mixed stream thereof.~~

11. The process of claim 10, wherein the stream comprising hydrogen peroxide is an aqueous hydrogen peroxide stream having a hydrogen peroxide concentration in the range of from 25 to 75 weight-%, preferably from 30 to 50 weight-%, based on the total weight of the aqueous hydrogen peroxide stream, wherein the aqueous hydrogen peroxide stream further comprises sodium with a molar ratio of sodium relative to hydrogen peroxide in the range of from $1x10^{-6}$:1 to $250x10^{-6}$, preferably from $5x10^{-6}$:1 to $50x10^{-6}$:1.

12. The process of any of claims 1 to 11, wherein the liquid feed stream passed into the epoxidation reactor in (ii) has a temperature in the range of from 0 to 60 °C, preferably from 25 to 50 °C, and is at a pressure in the range of from 14 to 100 bar, preferably from 15 to 25 bar.

13. The process of any of claims 1 to 12, wherein in (ii), the temperature of the reaction mixture is controlled using a heat transfer medium, preferably by passing the heat transfer medium through a jacket of the epoxidation reactor.

14. The process of claim 13, wherein in (ii), the epoxidation conditions comprise an epoxidation reaction temperature in the range of from 20 to 100 °C, preferably from 30 to 80 °C, more preferably from 40 to 60 °C, wherein the epoxidation reaction temperature is defined as the temperature of the heat transfer medium prior to controlling of the temperature of the reaction mixture, preferably as the temperature of the heat transfer medium at the entrance of the jacket of the epoxidation reactor.

15. The process of any of claims 1 to 14, wherein in (ii), the epoxidation conditions comprise an epoxidation reaction pressure in the range of from 14 to 100 bar, preferably from 15 to 32 bar, more preferably from 15 to 25 bar, wherein the epoxidation reaction pressure is defined as the pressure at the exit of the epoxidation reactor.

16. The process of any of claims 1 to 15, wherein in (ii), the epoxidation conditions comprise a hydrogen peroxide conversion in the range of from 90 to 100 %, preferably from 95 to 100 %, more preferably from 98 to 100 %, wherein the hydrogen peroxide conversion is calculated based on the amount of hydrogen peroxide comprised in the effluent stream removed in (iii) and the amount of hydrogen peroxide comprised in the liquid feed stream provided in (i).

~~17. The process of any of claims 1 to 16, wherein in (ii), the reaction mixture is liquid under the epoxidation conditions, the reaction mixture preferably consisting of one single liquid phase under the epoxidation conditions.~~

~~18. The process of any of claims 1 to 17, wherein in (ii), the epoxidation conditions comprise a catalyst loading in the range of from 0.05 to 1.25 h^{-1}, preferably from 0.1 to 1 h^{-1}, more preferably from 0.2 to 0.7 h^{-1}, wherein the catalyst loading is defined as the ratio of the mass flow rate in kg/h of hydrogen peroxide contained in liquid feed stream provided in (i) divided by the amount in kg of catalyst comprising a titanium zeolite of structure type MWW comprising zinc comprised in the epoxidation reactor in (ii).~~

~~19. The process of any of claims 1 to 18, wherein in (ii), the catalyst comprising a titanium zeolite of structure type MWW comprising zinc is present in the reactor as fixed-bed catalyst.~~

10~~20~~. The process of any of claims 1 to ~~19~~, wherein the titanium zeolite of framework structure type MWW comprising zinc comprised in the catalyst in (ii) contains titanium, calculated as elemental titanium, in an amount in the range of from 0.1 to 5 weight-%, preferably from 1 to 2 weight-%, based on the total weight of the titanium zeolite of framework structure type MWW comprising zinc, and contains zinc, calculated as elemental zinc, in an amount in the range of from 0.1 to 5 weight-%, preferably from 1 to 2 weight-%, based on the total weight of the titanium zeolite of framework structure type MWW comprising zinc.

11~~21~~. The process of any of claims 1 to ~~2~~10, wherein the propylene oxide selectivity of the epoxidation reaction according to (ii) is at least 95 %, preferably at least 96 %, more preferably at least 97 %, wherein the propylene oxide selectivity is defined as the molar amount of propylene oxide comprised in the effluent stream removed in (iii) relative to the molar amount of hydrogen peroxide comprised in the liquid feed stream provided in (i).

~~22. The process of any of claims 1 to 21, wherein the effluent stream removed in (iii) comprises~~

~~the propylene oxide in amount of from 5 to 20 weight-%, preferably from 8 to 18 weight-%, more preferably 10 to 14 weight-% based on the total weight of the effluent stream;~~

~~the acetonitrile in amount of from 60 to 75 weight-%, preferably from 60 to 65 weight-%, based on the total weight of the effluent stream;~~

~~the water in amount of from 10 to 25 weight %, preferably from 15 to 20 weight %, based on the total weight of the effluent stream;~~

~~optionally the propene with a molar ratio of propene relative to hydrogen peroxide comprised in the feed stream in the range of from 0.005:1 to 0.7:1, preferably from 0.25:1 to 0.45:1;~~

~~potassium with a molar ratio of potassium comprised in the of the at least one dissolved potassium salt of a phosphorus oxyacid relative to hydrogen peroxide comprised in the feed stream in the range of from $25x10^{-6}$:1 to $250x10^{-6}$:1, preferably from $100x10^{-6}$:1 to $150x10^{-6}$:1;;~~

~~optionally the propane, preferably in an amount in the range of from 95 to 100 %, preferably from 98 to 100 %, more preferably from 99 to 100 % of the amount contained in the liquid feed stream provided in (i);~~

~~wherein at least 95 weight-%, preferably from 95 to 100 weight-%, more preferably from 98 to 100 weight-% of the effluent stream removed in (iii) consist of propylene oxide, acetonitrile, water, the at least one dissolved potassium salt of a phosphorus oxyacid, optionally propene, and optionally propane.~~

~~23. The process of any of claims 1 to 22, wherein the effluent stream removed in (iii) contains molecular oxygen with a molar ratio of the molecular oxygen comprised in the effluent stream removed in (iii) relative to the hydrogen peroxide comprised in the liquid feed stream provided in (i) is in the range of from 0.05:100 to 2.5:100, preferably from 0.1:100 to 2.25:100, more preferably from 0.15:100 to 42:100.~~

12~~24~~. The process of any of claims 1 to 11~~23~~, wherein the effluent stream removed in (iii) comprises propene, optionally propane, and optionally oxygen, the process further comprising

(iv) separating propene, optionally together with propane and oxygen, from the effluent stream, obtaining a stream S01 enriched in propylene oxide, acetonitrile, and water, wherein preferably at least 99 weight-% of S01 consist of acetonitrile, water, and propylene oxide;

(v) separating propylene oxide from S01, obtaining a stream comprising propylene oxide and being depleted of acetonitrile and water.

13~~25~~. A catalytic system comprising a catalyst comprising a titanium zeolite of structure type MWW comprising zinc and at least one potassium salt of a phosphorus oxyacid, wherein the molar ratio of potassium relative to phosphorus in the potassium salt of the at least one phosphorus oxyacid is in the range of from 0.6 to 1.4.

1426. The catalytic system of claim 1325, wherein the at least one potassium salt of a phosphorus oxyacid has the following formula (I)

$$K_{nx}H_{2+n(1-x)}P_nO_{3n+1} \quad (I)$$

wherein n is an integer in the range of from 1 to 10, preferably from 1 to 5, more preferably from 1 to 3, and wherein x is in the range of from 0.6 to 1.4, preferably from 0.7 to 1.3, more preferably from 0.8 to 1.2, wherein n is preferably in the range of from 0.95 to 1.05 and wherein x is preferably in the range of from 0.95 to 1.05.

1527. The catalytic system of claim 1325 or 1426, wherein the titanium zeolite of structure type MWW comprising zinc which is comprised in the catalyst in (ii) contains titanium, calculated as elemental titanium, in an amount in the range of from 0.1 to 5 weight-%, preferably from 1 to 2 weight-%, based on the total weight of the titanium zeolite of framework structure type MWW comprising zinc, and contains zinc, calculated as elemental zinc, in an amount in the range of from 0.1 to 5 weight-%, preferably from 1 to 2 weight-%, based on the total weight of the titanium zeolite of framework structure type MWW comprising zinc.

~~28. The catalytic system of any of claims 25 to 27 for the epoxidation of propene.~~

~~29. The catalytic system of any of claims 25 to 28, being obtainable or obtained by~~

~~(i') providing a liquid feed stream comprising propene, hydrogen peroxide, acetonitrile, water, optionally propane, and the at least one preferably dissolved potassium salt of a phosphorus oxyacid, wherein the molar ratio of potassium comprised in the at least one potassium salt of a phosphorus oxyacid relative to hydrogen peroxide in the liquid feed stream is preferably in the range of from $25x10^{-6}$:1 to $250x10^{-6}$:1, more preferably from $50x10^{-6}$:1 to $200x10^{-6}$:1, more preferably from $100x10^{-6}$:1 to $150x10^{-6}$:1, and wherein the weight ratio of water relative to acetonitrile in the liquid feed is preferably at most 1:4, more preferably in the range of from 1:50 to 1:4, more preferably from 1:15 to 1:4.1, more preferably from 1:10 to 1:4.2;~~

~~(ii') passing the liquid feed stream provided in (i') into an epoxidation reactor comprising the catalyst comprising a titanium zeolite of structure type MWW comprising zinc, wherein in (ii'), the liquid feed stream is preferably subjected to epoxidation reaction conditions in the epoxidation reactor, obtaining a reaction mixture comprising propylene oxide, acetonitrile, water, the at least one dissolved~~

~~potassium salt of a phosphorus oxyacid, optionally propene, and optionally propane.~~

~~30. The catalytic system of claim 29, having a deactivation rate of at most 0.010 K/d at an operating time of 500 h, preferably of at most 0.007 K/d at an operating time of 1000 h, more preferably of at most 0.005 K/d at an operating time of 2000 h.~~

16~~31~~. Use of at least one potassium salt of a phosphorus oxyacid wherein the molar ratio of potassium relative to phosphorus in the potassium salt of the at least one phosphorus oxyacid is in the range of from 0.6 to 1.4 as an additive for a titanium zeolite of framework structure type MWW comprising zinc in a preferably continuous process for the preparation of propylene oxide, preferably in acetonitrile as solvent, and preferably with hydrogen peroxide as epoxidation agent.

~~32. A composition comprising at least 99.990 weight-%, preferably at least 99.995 weight-%, more preferably at least 99.999 weight-% of propylene oxide, obtainable or obtained by a process according to claim 24.~~