In the disclosure, it is provided an aqueous, excipient solution comprising a sodium ion concentration of about 110 -140 mM and a calcium ion concentration of 0.8 – 1.2 mM, wherein said excipient solution is suitable for diluting a diagnostic composition comprising a contrast agent.

In one aspect, there is provided an aqueous, excipient solution comprising a sodium ion concentration of 110 -140 mM and a calcium ion concentration of 0.8 – 1.2 mM, wherein said excipient solution is suitable for diluting a diagnostic composition comprising a contrast agent, wherein said contrast agent is a dimer containing two linked iodinated phenyl groups

In the disclosure, it is provided an aqueous, excipient solution comprising a sodium ion and a calcium ion wherein the molar ratio between sodium ion concentration and calcium ion concentration is between 80 and 175, and wherein said excipient solution is suitable for diluting a diagnostic composition comprising a contrast agent.

In another aspect, it is provided an aqueous, excipient solution consisting of Tris (Trometamol) at 10 mM, NaCa-EDTA at 0.27 mM, NaCl at 119 mM and $CaCl_2$ at1.03 mM, for diluting a diagnostic composition comprising a contrast agent.

In another aspect, it is provided a kit, comprising an aqueous, excipient solution according to the disclosure in a first container; a diagnostic composition comprising a concentrated contrast agent in a second container; and a user instruction manual.

In another aspect, it is provided a method for dilution of a diagnostic composition comprising a contrast agent, which method comprises

i) determining a desired dosage amount and dosage concentration for a patient;

ii) calculating a required amount of the diagnostic composition and a required amount of the aqueous, excipient solution according to the disclosure, based on the desired dosage amount and dosage concentration;

iii) delivering the required amount of the diagnostic composition to a mixing chamber; and

iv) delivering the required amount of the excipient solution to the mixing chamber.

In the disclosure, it is provided a method for producing an aqueous, excipient solution according to the disclosure; a method of diagnosis, as well as a method of *in vivo* imaging detection.

In an embodiment, it is provided a diagnostic composition prepared as disclosed above, wherein said composition is to be administered to a human or animal body, the body is examined with a diagnostic device and data are compiled from the examination.

In another aspect, it is provided a method of in vivo imaging detection comprising the following steps;

i) administering a detectable quantity of the diagnostic composition prepared as disclosed above;

ii) allowing the administered composition to distribute;

iii) detecting signals emitted by the contract agent of the distributed composition,

iv) generating an image representative of the location and/or amount of said signal.

In another aspect, it is provided a method for producing an aqueous, excipient solution as disclosed above, comprising

**We Claim:**

Claim 1: An aqueous, excipient solution comprising

a sodium ion concentration of 110 -140 mM and a calcium ion concentration of 0.8 – 1.2 mM, wherein said excipient solution is suitable for diluting a diagnostic composition comprising a contrast agent, wherein said contrast agent is a dimer containing two linked iodinated phenyl groups.

Claim 2: The excipient solution according to claim 1, wherein the sodium ion concentration is between 110 - 130 mM.

Claim 3: The excipient solution according to claim 1, wherein the sodium ion concentration is between 115-125 mM.

Claim 4: The excipient solution according to claim 1, wherein the sodium ion concentration is 119 mM.

Claim 5: The excipient solution according to claim 1, wherein the calcium ion concentration is between 0.9-1.1 mM.

Claim 6: The excipient solution according to claim 1, wherein the calcium ion concentration is between 1.00-1.05 mM.

Claim 7: The excipient solution according to claim 1, wherein the calcium concentration is 1.03 mM.

Claim 8: The excipient solution according to claim 1, wherein the molar ratio between sodium ion concentration and calcium ion concentration is between 115 and 120.

Claim 9: The excipient solution according to claim 1 wherein the sodium ion and calcium ion are from sodium salt and calcium salt comprising counter ions is chloride.

Claim 10: The excipient solution according to claim 1 wherein the sodium salt is sodium chloride and the calcium salt is calcium chloride.

Claim 11: The excipient solution according to claim 1 further comprising a pH controlling agent.

Claim 12: The excipient solution according to claim 11 further comprising a chelating agent.

Claim 13: The excipient solution according to claim 11 or claim 12 wherein the pH controlling agent is TRIS and the chelating agent is EDTA.

Claim 14: The excipient solution according to claim 1, wherein the solution contains the same components as the diagnostic composition, except the contrast agent.

Claim 15: An aqueous, excipient solution consisting of Tris (Trometamol) at 10 mM, NaCa-EDTA at 0.27 mM, NaCl at 119 mM and $CaCl_2$ at1.03 mM, for diluting a diagnostic composition comprising a contrast agent.

Claim 16: The excipient solution according to any of the above claims, wherein the contrast agent is ioforminol.

Claim 17: A kit, comprising

an aqueous, excipient solution according to any one of claims 1-16 in a first container;

a diagnostic composition comprising a concentrated contrast agent solution in a second container; and

a user instruction manual.

Claim 18: The kit according to claim 17, wherein the contrast agent is ioforminol.

Claim 19: The kit according to claim 17, wherein the contrast agent has a concentration of between 70-320 mg I/ml.

Claim 20: The kit according to claim 17, wherein the aqueous, excipient solution contains the same components as the diagnostic composition, except the contrast agent.

Claim 21: The kit according to claim 17, further comprising an instrument for homogeneous blending of the aqueous, excipient solution and the diagnostic composition under sterile conditions.

Claim 22: The kit according to claim 17, further comprising a software that controls the mixing regime resulting in any desired combination of contrast agent concentration and volume.

Claim 23: A method for dilution of a diagnostic composition comprising a contrast agent, which method comprises

i) determining a desired dosage amount and dosage concentration for a patient;

ii) calculating a required amount of the diagnostic composition and a required amount of the aqueous, excipient solution of claim 1, based on the desired dosage amount and dosage concentration;

iii) delivering the required amount of the diagnostic composition to a mixing chamber; and

iv) delivering the required amount of the excipient solution to the mixing chamber.

Claim 24: The method of claim 23, further comprising mixing the diagnostic composition and the excipient solution in the mixing chamber.

Claim 25: The method of claim 23, wherein the desired dosage amount and dosage concentration are determined based in part on the age, weight and health of the patient.

Claim 26: A method of in vivo imaging detection comprising the following steps;

i) administering a detectable quantity of the diagnostic composition prepared according to claim 23;

ii) allowing the administered composition to distribute;

iii) detecting signals emitted by the contract agent of the distributed composition,

iv) generating an image representative of the location and/or amount of said signal.

Claim 27: A method as claimed in claim 26 wherein the method is a method of coronary arteriography.

Claim 28: A method for producing an aqueous, excipient solution of claim 1, comprising

i) predicting the molar amount of sodium ion and calcium ion suitable for the excipient using a chemiometrical model, based on the salt composition of the diagnostic formulation;

ii) making the aqueous, excipient solution according to the predicted molar amount of sodium ion and calcium ion.