CLAIMS:

1. A method of forming an iron hydroxypyrone compound comprising reacting a hydroxypyrone with a non-carboxylate iron salt in an aqueous solution and precipitating the iron hydroxypyrone compound from the aqueous solution having a pH of greater than 7, wherein the precipitated iron hydroxypyrone compound is separated and collected from the solution.

2. The method of Claim 1, wherein the method does not comprise the use of an organic solvent, or the final pH of the aqueous solution is greater than 7, such as greater than 8 or 9.

3. The method of Claim 1 or Claim 2, wherein the method comprises reacting the hydroxypyrone with a non-carboxylate iron salt in an aqueous alkaline solution.

4. The method of any one of Claims 1 to 3, wherein the method comprises reacting the hydroxypyrone with a non-carboxylate iron salt at a temperature of greater than 40°C or 60°C.

5. The method of any one of Claims 1 to 4, wherein the non-carboxylate iron salt, optionally in the form of a solid or an aqueous solution, is added to a hydroxypyrone in an aqueous solution.

6. The method of any one of Claims 1 to 5, wherein the hydroxypyrone is in an aqueous alkaline solution to which the non-carboxylate salt is added, or wherein the hydroxypyrone is added to an aqueous solution, the solution is heated, the non-carboxylate salt is added to the heated solution and the resulting solution is combined with an aqueous alkaline solution comprising the hydroxypyrone.

7. The method of any one of Claims 1 to 6, wherein an iron monohydroxypyrone, an iron dihydroxypyrone, or a mixture thereof, is formed by reacting the hydroxypyrone with a non-carboxylate salt at an initial pH of less than 7 and/or additional hydroxypyrone compound is added to the aqueous solution and/or the pH is increased to greater than 7.

8. The method of any one of Claims 1 to 7, wherein the non-carboxylate iron salt is added to a hydroxypyrone solution in the form of a solid or an aqueous solution.