IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS

NYCOMED GmbH and WYETH

Plaintiffs,

v.

SANDOZ Inc.

Defendant.

CIVIL ACTION NO._____

FILED: MAY 16,2008
08CV2871 NF
JUDGE KENNELY
MAGISTRATE JUDGE NOLAN

COMPLAINT FOR PATENT INFRINGEMENT

1. Nycomed GmbH is a corporation incorporated and existing under the laws of Germany, having its principal place of business at Byk-Gulden-Str. 2, 78467 Konstanz, Germany.

2. Wyeth is a Delaware corporation with offices at Five Giralda Farms, Madison, NJ 07940.

3. Nycomed GmbH is at times referred to hereinafter as "Nycomed."

4. Upon information and belief, Defendant Sandoz Inc. ("Sandoz") is a Colorado corporation and having its principal place of business at 506 Carnegie Center Drive, Suite 400, Princeton, NJ 08540.

JURISDICTION AND VENUE

5. This action arises under the patent laws of the United States of America and jurisdiction exists under 28 U.S.C. §§ 1331 and 1338(a). Venue is proper in this Court under 28 U.S.C. §§ 1391(c), and 1400(b).

6. Upon information and belief, Sandoz markets, distributes and sells pharmaceutical products and transacts other business in the State of Illinois.

7. This Court has personal jurisdiction over Sandoz because it transacts business within the State of Illinois.

BACKGROUND FOR CLAIM FOR RELIEF UNDER 35 U.S.C. § 271 (e)

8. Wyeth Pharmaceuticals Inc., a wholly-owned subsidiary of Wyeth, is the holder of New Drug Application ("NDA") No. 20-988, by which the United States Food & Drug Administration ("USFDA") granted approval for pantoprazole sodium injection 40mg, which is marketed and sold by the Plaintiffs in the United States under the trade name "PROTONIX® I.V."

9. Nycomed is the owner of United States Patent No. 6,780,881 B2 ("the '881 patent"), which was duly and legally issued on August 24, 2004, and which discloses and claims certain pantoprazole preparations and injections. The sodium salt of pantoprazole is the active ingredient in PROTONIX® I.V.

10. Wyeth is the exclusive licensee of the '881 patent in the United States.

11. A copy of the '881 patent is attached as Exhibit A.

12. Upon information and belief, Sandoz filed in the USFDA an Abbreviated New Drug Application ("ANDA"), including a certification with respect to the '881 patent under § 505(j)(2)(A)(vii)(IV) of the Federal Food, Drug and Cosmetic Act (21 U.S.C. § 355), seeking approval to manufacture, use or sell Pantoprazole Sodium for Injection, 40 mg/vial, prior to expiration of the '881 patent.

13. Sandoz's ANDA No. 90-296 lists pantoprazole sodium as the active ingredient in an injectable dosage form of the drug.

14. By letter dated April 3, 2008, Sandoz sent a notice to Nycomed and Wyeth in which Sandoz represented that it had filed an ANDA for Pantoprazole Sodium for Injection,

40 mg/vial, including the certification with respect to the ’881 patent, and that it sought approval of its ANDA prior to the expiration of that patent.

15. Nycomed received notice of the Sandoz certification no earlier than April 7, 2008.

16. Wyeth received notice of the Sandoz certification no earlier than April 4, 2008.

CLAIM FOR RELIEF UNDER 35 U.S.C. § 271 (e)

17. Because Sandoz seeks approval of its ANDA to engage in the commercial manufacture, use or sale of a drug claimed in the ’881 patent before its expiration, Sandoz has infringed the ’881 patent pursuant to 35 U.S.C. § 271(e)(2)(A).

18. Nycomed and Wyeth are entitled to relief provided by 35 U.S.C. § 271(e)(4), including an order of this Court that the effective date of the approval of Sandoz’s ANDA be a date that is not earlier than the expiration date of the ’881 patent, or any later expiration of exclusivity for the ’881 patent to which Nycomed and/or Wyeth is or becomes entitled to.

19. Upon information and belief, Sandoz was aware of the existence of the ’881 patent and was aware that the filing of its ANDA and certification with respect to the ’881 patent constituted an act of infringement of that patent.

20. Sandoz’s statement of the factual and legal bases for its opinion regarding non-infringement of the ’881 patent is devoid of an objective good faith basis in either the facts or the law.

21. This case is an exceptional one, and Nycomed and Wyeth are entitled to an award of their reasonable attorney fees under 35 U.S.C. § 285.

PRAYER FOR RELIEF

22. Plaintiffs request that:

a. Judgment be entered that Sandoz has infringed the ’881 patent by submitting the aforesaid ANDA;

b. Judgment be entered that Sandoz has infringed the ’881 patent under 35 U.S.C. § 271;

c. A permanent injunction be issued, pursuant to 35 U.S.C. §§ 271(e)(4)(B) and 283, restraining and enjoining Sandoz and its directors, officers, agents, attorneys, affiliates, divisions, successors and employees, and those acting in privity or concert with them, from engaging in the commercial manufacture, use, offer to sell, or sale within the United States, or importation into the United States, of preparations and injections as claimed in the ’881 patent;

d. An order be issued pursuant to 35 U.S.C. § 271(e)(4)(A) that the effective date of any approval of ANDA No. 90-296 be a date that is not earlier than the expiration date for the ’881 patent, or any later expiration of exclusivity for the ’881 patent to which Plaintiffs are or become entitled;

e. Judgment be entered that this is an exceptional case and that Plaintiffs are entitled to their reasonable attorney fees pursuant to 35 U.S.C. §§ 271(e)(4) and 285; and

f. For such other and further relief as the Court may deem just and proper under the circumstances.

Dated: May 16, 2008

/s/ James B. Coughlan
James B. Coughlan (6201004)
Paul, Hastings, Janofsky & Walker LLP
191 North Wacker Drive, 30th Floor
Chicago, IL 60606
Phone: (312) 499-6000
Facsimile: (312) 499-6100
jamescoughlan@paulhastings.com

Joseph M. O'Malley, Jr. *(Pro Hac Pending)*
Bruce M. Wexler *(Pro Hac Pending)*
Eric W. Dittmann *(Pro Hac Pending)*
Isaac S. Ashkenazi *(Pro Hac Pending)*
William D. Young *(Pro Hac Pending)*
Paul, Hastings, Janofsky & Walker LLP
75 East 55th Street
New York, New York 10022
Phone: (212) 318-6000

Lawrence J. Gotts *(Pro Hac Pending)*
Aslan Baghdadi *(Pro Hac Pending)*
Paul, Hastings, Janofsky & Walker LLP
875 15th Street, N.W.
Washington, DC 20005
Phone: (202) 551-1700

Attorneys for Plaintiffs
Nycomed GmbH and Wyeth

08CV 2871 NF
JUDGE KENNELLY
MAGISTRATE JUDGE NOLAN

Exhibit A

US006780881B2

(12) **United States Patent**
Linder et al.

(10) **Patent No.: US 6,780,881 B2**
(45) **Date of Patent: Aug. 24, 2004**

(54) **FREEZE-DRIED PANTOPRAZOLE PREPARATION AND PANTOPRAZOLE INJECTION**

(75) Inventors: **Rudolf Linder**, Constance (DE); **Rango Dietrich**, Constance (DE)

(73) Assignee: **Altana Pharma AG**, Constance (DE)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **10/195,062**

(22) Filed: **Jul. 15, 2002**

(65) **Prior Publication Data**

US 2003/0003058 A1 Jan. 2, 2003

Related U.S. Application Data

(63) Continuation-in-part of application No. PCT/EP01/13296, filed on Nov. 17, 2001.

(30) **Foreign Application Priority Data**

Nov. 22, 2000 (EP) 00125569

(51) **Int. Cl.**[7] **A61K 31/44**; A61K 31/41; A61K 9/19; A61K 9/14; C07D 235/04

(52) **U.S. Cl.** **514/338**; 514/925; 514/926; 514/927; 514/359; 514/360; 424/46; 548/304.4

(58) **Field of Search** 514/338, 935, 514/926, 927, 359, 360; 424/46; 548/304.4

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,589,491 A 12/1996 Nakanishi et al.

FOREIGN PATENT DOCUMENTS

CN	1 235 018	11/1999
DE	43 24 014	1/1995
WO	WO 94/02141	2/1994
WO	WO 99/18959	4/1999

OTHER PUBLICATIONS

Dietrich, Rango, DE 4324014, Jan. 19, 1995, Preparation of a lyophilized, water–reconstitutable formulation of Pantoprazol Sodium Sesquihydrate, Abstract.*

BASF–Pharma UK, Section 3—Summary of Product Characteristics "Protium i.v. pantoprazole sodium lyophile". Jan. 2000.

Kibbe, A.H., "Handbook of Pharmaceutical Excipients". Pharmaceutical Press, pp. 191–194, 649, (2000).

Physician's Desk Reference, PDR Entry for Protonix I.V. (Wyeth–Ayerst), vol. 58 (2004), pp. 3480–3483.

* cited by examiner

Primary Examiner—Frederick Krass
Assistant Examiner—Clinton Ostrup
(74) *Attorney, Agent, or Firm*—Nath & Associates PLLC; Todd L. Juneau; Sheldon M. McGee

(57) **ABSTRACT**

Lyophilized pantoprazole preparations which are obtainable by freeze-drying of an aqueous solution of pantoprazole, ethylenediamine tetraacetic acid and/or a suitable salt thereof, and sodium hydroxide and/or sodium carbonate are disclosed. The preparations have advantageous properties when reconstituted for injection.

24 Claims, No Drawings

FREEZE-DRIED PANTOPRAZOLE PREPARATION AND PANTOPRAZOLE INJECTION

This application is a Continuation-In-Part of International Patent Application No. PCT/EP01/13296 with an international filing date of 17 Nov. 2001, the entire contents of the application which is hereby incorporated in its entirety.

TECHNICAL FIELD

The present invention relates to the field of pharmaceutical technology and describes freeze-dried 5-difluoromethoxy-2-[(3,4-dimethoxy-2-pyridinyl) methylsulfinyl]-1H-benzimidazole preparations and a 5-difluoromethoxy-2-[(3,4dimethoxy-2-pyridinyl) methylsulfinyl]-1H-benzimidazole injection. Further-more the invention also relates to a process for the production of freeze-dried 5-difluoromethoxy-2-[(3,4-dimethoxy-2-pyridinyl)methylsulfinyl]-1H-benzimidazole and a 5-difluoromethoxy-2-[(3,4-dimethoxy-2-pyridinyl) methylsulfinyl]-1H-benzimidazole injection.

PRIOR ART

WO94/02141 describes an injection comprising a 2-[(2-pyridyl)methylsulfinyl]-benzimidazole compound an aqueous solvent added with no nonaqueous solvent, wherein the pH of the injection is not less than 9.5 and not more than 11.5. It is mentioned that said injection does not cause hemolysis and causes less local irritation.

DE 43 24 014 describes the preparation of a lyophilisate of pantoprazole-sodium sesquihydrate in the presence of sucrose as an auxiliary at production temperatures of −25 to −30° C. It is disclosed that the lyophilisate is of improved storage stability and can be stored at room temperature for at least 18 months and is easily reconstituted in liquid form in suitable doses for use.

CN 1235018 describes a freeze-dried injection powder of pantoprazole sodium containing no crystallised water with pH value of 9–12.5, which is composed of pantoprazole sodium, freeze-dried powder supporting agent, metal ion complexing agent and pH regulator.

WO99/18959 describes aqueous pharmaceutical compositions which are chemically and physically stable for intravenous injection which comprise anti-ulcerative compound and glycine as stabilizer in carrier.

DESCRIPTION OF INVENTION

Reconstitution of lyophilised pharmaceutical compounds with carrier solutions for application may lead to the formation of visible and/or subvisible particles in the solution. Injectable solutions, including solutions constituted from sterile solids intended for parenteral use should be essentially free from particles that can be observed on visual inspection and for patient safety it is also desirable to have a low number of subvisible particles. USP (United States Pharmacopoeia) 24 describes physical tests performed for the purpose of enumerating subvisible extraneous particles within specific size ranges and also defines particulate matters limits set forth for the test being applied for large-volume Injections for single-dose infusion and small-volume injections (U.S. Pat. No. 24, <788>Particulate Matter in Injections).

Surprisingly it has now been found that by freeze drying of an aqueous solution of pantoprazole, ethylenediamine tetraacetic acid and/or a suitable salt thereof, and sodium hydroxide and/or sodium carbonate a lyophilisate is obtained having significantly lower number of subvisible particles after reconstitution with a solvent compared to lyophilisates of the state of the art. The lyophilisate according to the invention is very stabile and is easily reconstituted with suitable solvents. In particular the pantoprazole injection according to the invention has less than 130, preferably less than 120 subvisible particles/per vial, the particles having a size equal to or greater as 10 μm, the number of particles determined according to U.S. Pat. No. 24 (<788>Particle Matter in Injections) by light obscuration particle test count.

5-Difluoromethoxy-2-[(3,4-dimethoxy-2-pyridinyl) methylsulfinyl]-1H-benzimidazole (INN; pantoprazole, in connection with the invention also referred to as pantoprazole) is known from EP-A-0 166 287. Pantoprazole is a chiral compound. In connection with the invention the term pantoprazole also includes the pure enantiomers of pantoprazole and their mixtures in any mixing ratio. (S)-pantoprazole [(−)-pantoprazole] may be mentioned by way of example. Pantoprazole is present here as such or preferably in the form of it's salt with a base. Examples of salts with a base which may be mentioned are sodium, potassium, magnesium and calcium salts. Pantoprazole and/or a salt thereof may contain various amounts of solvent when isolated in crystalline form. In connection with the invention pantoprazole also refers to all solvates and in particular to hydrates of 5-difluoromethoxy-2-[(3,4-dimethoxy-2-pyridinyl)methylsulfinyl]-1H-benzimidazole and salts thereof. Such a hydrate of the salt of pantoprazole with a base is disclosed, for example, in WO91/19710. Expediently pantoprazole refers to pantoprazole sodium sesquihydrate (=pantoprazole sodium×1.5H_2O) and pantoprazole magnesium dihydrate.

According to the invention the pantoprazole solution used in the freeze drying process can be obtained by addition of ethylenediamine tetraacetic acid and/or a suitable salt thereof, and sodium hydroxide and/or sodium carbonate to an aqueous solvent. Suitable salts of ethylenediamine tetraacetic acid which may be mentioned in connection with the invention by way of example are ethylenediamine tetraacetic acid disodium salt, ethylenediamine tetraacetic acid calcium disodium salt ethylenedlamine tetraacetic acid trisodium salt and ethylenedlamine tetraacetic acid tetrasodium salt. The proportion by weight of ethylenediamine tetraacetic acid and/or a suitable salt thereof, based on the amount of pantoprazole used is from 0.05 to 25% preferably from 0.25 to 12.5% or particular preferred from 1 to 5%. The aqueous solvent preferentially is water for injection. Subsequently pantoprazole is added to the solution and dissolved by stirring. It is preferred to have a solution wherein the proportion of weight (m/m) of pantoprazole is 0.5 to 10%, particularly preferred 1 to 6%. In a further preferred embodiment of the invention the pH of the solution used in the freeze drying process is 8 or above 8. Particularly preferred the pH of said solution is in the range from 10 to 13, more preferred the pH of the solution is in the range from 10.5 to 11.5 and particularly more preferred the pH is in the range from 10.75 to 11.25. Exemplary pH values of said solution, which are to be emphasized are 10.75, 10.8, 10.85, 10.9, 10.95, 11, 11.05, 11.1, 11.15, 11.2 and 11.25. Then this solution is filtered for sterilization and charged in vials. The solution is then freeze dried by a method known per se.

A pantoprazole injection according to the invention can be produced by dissolving the lyophilized product thus obtained in a suitable solvent for example physiological

saline, aqueous solution of 5% glucose, or distilled water for injection. Preferably the pantoprazole injection according to the invention is used in the form of intravenous injection.

The lyophilised product and pantoprazole injection according to the invention preferably contain pantoprazole in the dose customary for the treatment of the respective disease. The lyophilised product and pantoprazole injection according to the invention can be employed for the treatment and prevention of all the diseases which are regarded as treatable or avoidable by the use of pyridin-2-ylmethylsulfinyl-1H-benzimidazoles. In particular, the lyophilised product and pantoprazole injection according to the invention can be employed in the treatment of stomach disorders. The lyophilized products in particular contain between 5 and 150 mg, preferably between 5 and 60 mg, of pantoprazole. Examples which may be mentioned are lyophilized products or injections which contain 10, 20, 40, 50 or 96 mg of pantoprazole. The administration of the daily dose (e.g. 40 mg of active compound) can be carried out, for example, in the form of an individual dose or by means of a number of doses of the administration forms according to the invention (e.g. 2 times 20 mg of active compound). The concentration of pantoprazole in the injection according to the invention may vary depending upon the administration route and generally ranges in a proportion of 0.05–10 mg/ml, preferably 0.1 to 5 mg/ml on a free compound basis. For example for bolus administration 20 to 120 mg of lyophilized product according to the invention can be reconstituted with 10 ml physiological saline.

The production of the lyophilized product and pantoprazole injection is described by way of example below. The following examples illustrate the invention in greater detail, without restricting it.

EXAMPLES

Production of a Lyophilized Pantoprazole Preparation

Example 1

Under nitrogen atmosphere, 0.276 g Ethylenediamine tetraacetic acid disodium salt and 6.7 g sodium hydroxide (1 N aqueous solution) are added to 480 g water for injection of 4° C. to 8° C. 12.47 g pantoprazole sodium sesquihydrate is added while stirring to give a clear solution. The weight of the solution is adjusted to 500 g by addition of water for injection. The pH of the solution is 11.76. The solution is filtered through a 0.2 μm membrane filter and filled in glass vials (1.81 g by vial). Filled vials are semi-stoppered and put into a freeze-dryer (GT4 Edwards/Kniese or GT8 Amsco) for lyophilisation. The vials are cooled to −45° C., then the temperature is raised to −20 to −5° C. under vacuum (0.1 to 0.5 mbar) for drying. After finishing main drying the temperature is raised to 30° C., the vacuum is adjusted to 0.01 mbar and drying is continued for an additional 3 hours. An off-white lyophilized product is obtained which is easily reconstituted with physiological saline to give a clear solution.

Example 1a

Under nitrogen atmosphere, 0.276 g Ethylenediamine tetraacetic acid disodium salt and 1.66 ml sodium hydroxide solution (1N aqueous solution) are added to 480 g water for injection of 4° C. to 8° C. 12.47 g pantoprazole sodium sesquihydrate is added while stirring to give a clear solution. The weight of the solution is adjusted to 500 g by addition of water for injection. The pH of the solution is 11.76. The solution is filtered through a 0.2 μm membrane filter and filled in glass vials (1.81 g by vial). Filled vials are semi-stoppered and put into a freeze-dryer (GT4 Edwards/Kniese or GT8 Amsco) for lyophilisation. The vials are cooled to 45° C. then the temperature is raised to −20 to −5° C. under vacuum (0.1 to 0.5 mbar) for drying. After finishing main drying the temperature is raised to 30° C., the vacuum is adjusted to 0.01 mbar and drying is continued for an additional 3 hours. An off-white lyophilized product is obtained which is easily reconstituted with physiological saline to give a clear solution.

Comparative Examples

Example 2

Under nitrogen atmosphere, 12.47 g pantoprazole sodium sesquihydrate is added to 480 g water for injection of 4° C. to 8° C. while stirring to give a clear solution. The volume of the solution is adjusted to 500 g by addition of water for injection. The pH of the solution is 10.85. The solution is filtered through a 0.2μm membrane filter and filled in glass vials (1.81 g by vial). Filled vials are semi-stoppered and put into a freeze-dryer (GT4 Edwards/Kniese or GT8 Amsco) for lyophilisation. The vials are cooled to −45° C., then the temperature is raised to −20 to −5° C. under vacuum (0.1 to 0.5 mbar) for drying. After finishing main drying the temperature is raised to 30° C., the vacuum is adjusted to 0.01 mbar and drying is continued for an additional 3 hours. An off-white lyophilized product is obtained.

Example 3

Under nitrogen atmosphere, 2.45 g sodium hydroxide (1N aqueous solution) is added to 480 g water for injection of 4° C. to 8° C. 12.47 g pantoprazole sodium sesquihydrate is added while stirring to give a clear solution. The weight of the solution is adjusted to 500 g by addition of water for injection. The pH of the solution is 12.02. The solution is filtered through a 0.2 μm membrane filter and filled in glass vials (1.81 g by vial). Filled vials are semi-stoppered and put into a freeze-dryer (GT4 Edwards/Kniese or GT8 Amsco) for lyophilisation. The vials are cooled to −45° C., then the temperature is raised to −20 to −5° C. under vacuum (0.1 to 0.5 mbar) for drying. After finishing main drying the temperature is raised to 30° C., the vacuum is adjusted to 0.01 mbar and drying is continued for an additional 3 hours. An off-white lyophilized product is obtained.

Example 4

Under nitrogen atmosphere, 0.05 g Ethylenediamine tetraacetic acid disodium salt is added to 480 g water for injection of 4° C. to 8° C. 12.47 g pantoprazole sodium sesquihydrate is added while stirring to give a clear solution. The weight of the solution is adjusted to 500 g by addition of water for injection. The pH of the solution is 10.2. The solution is filtered through a 0.2 μm membrane filter and filled in glass vials (1.81 g by vial). Filled vials are semi-stoppered and put into a freeze-dryer (GT4 Edwards/Kniese or GT8 Amsco) for lyophilisation. The vials are cooled to −45° C., then the temperature is raised to −20 to −5° C. under vacuum (0.1 to 0.5 mbar) for drying. After finishing main drying the temperature is raised to 30° C. the vacuum is adjusted to 0.01 mbar and drying is continued for an additional 3 hours. An off-white lyophilized product is obtained.

Light Obscuration Particle Test Count

Particulate matter/per vial in solutions constituted from the lyophilized products obtained according to Examples 1

to 4 were determined according to USP 24 (<788>Particulate Matter in Injections) by light obscuration particle test count.

The number of extraneous particles per vial having a size equal to or greater as 10 μm detected are summarized in Table 1. As may be evident from table 1, the number of subvisible particles per vial (equal to or greater as 10 μm) in solutions constituted from products obtained according to the invention (EXAMPLE 1) is lower than for products obtained by methods which differ from the present invention (EXAMPLES 2 to 4).

TABLE 1

EXAMPLE 1 (Product obtained by freeze drying of Pantoprazole sodium sesquihydrate, sodium hydroxide and ethylenediamine tetraacetic acid disodium salt) particles/ per vial > = 10 μm	EXAMPLE 2 (Product obtained by freeze drying of Pantoprazole sodium sesquihydrate) particles/ per vial > = 10 μm	EXAMPLE 3 (Product obtained by freeze drying of Pantoprazole sodium sesquihydrate and sodium hydroxide) particles/ per vial > = 10 μm	EXAMPLE 4 (Product obtained by freeze drying of Pantoprazole sodium sesquihydrate and ethylene-diamine tetraacetic acid disodium salt) particles/ per vial > = 10 μm
109	458	144	211

The invention being thus described, it will be obvious that the same may be varied in many ways. Such variations are not to be regarded as a departure from the spirit and scope of the invention and all such modifications are intended to be included within the scope of the following claims.

What is claimed is:

1. Process for the production of a freeze-dried preparation comprising 5-difluoromethoxy-2-[(3,4-di-methoxy-2-pyridinyl)methylsulfinyl]-1H-benzimidazole (pantoprazole), a salt thereof, a solvate of pantoprazole or a salt thereof, comprising freeze-drying of an aqueous solution of pantoprazole, a salt thereof, a solvate of pantoprazole or a salt thereof, ethylenedlamine tetraacetic acid and/or a suitable salt thereof, and sodium hydroxide and/or sodium carbonate, wherein upon dissolution in an aqueous solvent, the preparation has less than 130 subvisible particles per vial, the particles having a size equal to or greater than 10 μm, wherein the number of particles is determined according to USP 24 by light obscuration particle test count.

2. Process according to claim **1**, wherein the solution is prepared by the following steps:

a. dissolving ethylenediamine tetraacetic acid and/or a suitable salt thereof in water,

b. adjusting the pH of the solution to 8 or above 8 by adding sodium hydroxide and/or sodium carbonate to the solution, and

c. adding pantoprazole, a salt thereof, a solvate of pantoprazole or a salt thereof, to the solution.

3. Process according to claim **1**, wherein the ethylened-lamine tetraacetic acid and/or suitable salt thereof is present in an amount from about 0.05 to about 25% by weight, based on the amount of pantoprazole present.

4. Process according to claim **1**, wherein the pantoprazole used in the step of freeze-drying is pantoprazole sodium sesquihydrate.

5. Process according to claim **1**, wherein the aqueous solution has a pH of between about 10 to about 13.

6. Process according to claim **1**, wherein the aqueous solution has a pH of between about 10.5 to about 11.5.

7. Process according to claim **1**, wherein the aqueous solution has a pH of between about 10.75 to about 11.25.

8. Process according to claim **1**, wherein the aqueous solution has a pH value that is selected from the group consisting of 10.75, 10.8, 10.85, 10.9, 10.95, 11, 11.05, 11.1, 11.15, 11.2, and 11.25.

9. Process according to claim **1**, wherein ethylenediamine tetraacetic acid and/or suitable salt thereof is present in an amount from about 0.25 to about 12.5% by weight, based on the amount of pantoprazole present.

10. Process according to claim **1**, wherein the ethylene-diamine tetraacetic acid and/or suitable salt thereof is present in an amount from about 1 to about 5% by weight, based on the amount of pantoprazole present.

11. Process according to claim **1**, wherein the preparation has less than 120 subvisible particles per vial upon dissolution in an aqueous solvent.

12. Process according to claim **1**, wherein the pantoprazole used in the step of freeze-drying is pantoprazole sodium.

13. Process according to claim **1**, wherein the pantoprazole used in th step of freeze-drying is pantoprazole magnesium.

14. Process according to claim **1**, wherein the pantoprazole used in the step of freeze-drying is pantoprazole magnesium dihydrate.

15. Lyophilized pantoprazole preparation obtainable by a process according to claim **1**.

16. Injection kit comprising a lyophilized pantoprazole preparation according to claim **15** and an aqueous solvent for bolus administration.

17. Pantoprazole injection for bolus administration obtainable by reconstitution of the pantoprazole preparation according to claim **15** in an aqueous solvent.

18. Pantoprazole injection according to claim **17**, wherein the solvent is physiological saline.

19. Pantoprazole injection having less than 130 subvisible particles per vial, the particles having a site equal to or greater than 10 μm, wherein the number of particles is determined according to USP 24 by light obscuration particle test count.

20. Pantoprazole injection according to claim **19**, having less than 120 subvisible particles per vial.

21. Pantoprazole injection according to claim **19**, wherein the pantoprazole is present therein is obtained from pantoprazole sodium sesquihydrate.

22. Pantoprazole injection according to claim **19**, wherein the pantoprazole is present therein is obtained from pantoprazole sodium.

23. Pantoprazole injection according to claim **19**, wherein the pantoprazole is present therein is obtained from pantoprazole magnesium.

24. Pantoprazole injection according to claim **19**, wherein the pantoprazole is present therein is obtained from pantoprazole magnesium dihydrate.

* * * * *