



PATENT TERM CALCULATOR

If this estimate is for either a **reexamination** or a **reissue** you must use the **original patent's** information.

NOTE: If you wish to save this file for future reference, please retype the date in this calculated field.

Today's date is:

MM DD YYYY
4 30 2018

For what type of patent are you calculating a term?

utility

(NOTE: if a **reexamination** or **reissue**, base calculations on the **original patent's** information)

What is the filing date of the patent (U.S. or 371 International Date, if applicable)?

MM DD YYYY
7 2 1998

Domestic Benefit

Does the patent claim any domestic benefit?

Yes No

If the patent claims any domestic benefit, what is the Earliest Effective Filing Date?

MM DD YYYY
5 6 1992

Domestic Benefit = Continuation, Continuation-in-Part, or Divisional

What is the grant date of the patent?

MM DD YYYY
11 7 2000

How much 154 PTE is the patent entitled to (days)? If none, enter '0'

0 days of 154 PTE

How much 156 PTE is the patent entitled to (days)? If none, enter '0'

0 days of 156 PTE

Terminal Disclaimers

Does the patent have any terminal disclaimers?

Yes No

If there are any terminal disclaimers, what is the earliest TD-based expiration date?

MM DD YYYY
5 6 2012

Timely Payment of Maintenance Fees

NOTE: For patents that are not designs or plants, maintenance fees must be paid on time to preserve the full patent term. Maintenance fees are due three times during the life of a patent, and may be paid without surcharge 3 to 3.5 years, 7 to 7.5 years, and 11 to 11.5 years after the date of issue and cannot be paid early. Maintenance fees may also be paid with a surcharge during the "grace periods" of 3.5 to 4 years, 7.5 to 8 years, and 11.5 to 12 years after the date of issue.

The dates below reflect the latest possible payment date, including grace periods.

Your first Maintenance Fee should be paid no later than 4 years after issue:

MM DD YYYY
11 7 2004

Did you pay this fee?

yes

Your second Maintenance Fee should be paid no later than 8 years after issue:

MM DD YYYY
11 7 2008

Did you pay this fee?

yes

Your third Maintenance Fee should be paid no later than 12 years after issue:

MM DD YYYY
11 7 2012

Did you pay this fee?

yes

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MM DD YYYY

The calculated expiration date for this patent is 5 6 2012

ERROR CONTROL SUMMARY - The above calculation is based upon the following date information:

| | |
|---|-----------|
| Date Filed | 7/2/1998 |
| Earliest Effective Filing Date | 5/6/1992 |
| Grant Date | 11/7/2000 |
| Terminally Disclaimed to | 5/6/2012 |
| Combined days of 35 USC 154 PTA, 35 USC 154 PTE and 35 USC 156 PTE additions. | 0 |
| Expiration due to Missed Maintenance Fee Payment | |

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| Patent Number: | 6143799 |
| Application Number: | 09/109453 |

Exhibit 1104





US005342620A

United States Patent [19]

[11] Patent Number: **5,342,620**

Chowhan

[45] Date of Patent: **Aug. 30, 1994**

[54] **USE OF BORATE-POLYOL COMPLEXES IN OPHTHALMIC COMPOSITIONS**

[75] Inventor: **Masood Chowhan, Arlington, Tex.**

[73] Assignee: **Alcon Laboratories, Inc., Fort Worth, Tex.**

[21] Appl. No.: **118,833**

[22] Filed: **Sep. 7, 1993**

Related U.S. Application Data

[63] Continuation of Ser. No. 879,435, May 6, 1992, abandoned.

[51] Int. Cl.⁵ **A61K 9/08**

[52] U.S. Cl. **424/422; 424/400; 424/427; 424/658; 424/659; 514/839; 514/840; 514/912; 514/915**

[58] Field of Search **424/400, 427, 658, 659; 514/839, 840, 912, 915**

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Primary Examiner—Thurman K. Page
Assistant Examiner—Amy Hulina
Attorney, Agent, or Firm—Julie J. L. Cheng

[57] ABSTRACT

Aqueous ophthalmic compositions containing water-soluble borate-polyol complexes are useful in aqueous ophthalmic compositions containing polyvinyl alcohol. These compositions provide the benefits of a borate buffering system, such as enhanced antimicrobial activity, without the problems associated with the use of borate and pol, such as formation of borate-polyvinyl alcohol complexes which are water-insoluble.

15 Claims, No Drawings

514

7677

Harrison

FILED WITH: DISK (CRF) FICHE
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Harrison
514/840

PREPARED AND APPROVED FOR ISSUE

ISSUING CLASSIFICATION

| ORIGINAL | | CROSS-REFERENCE(S) | | | | | |
|------------------------------|----------|--------------------|-----------------------------------|-----|-----|--|--|
| CLASS | SUBCLASS | CLASS | SUBCLASS (ONE SUBCLASS PER BLOCK) | | | | |
| 514 | 839 | 422 | 28 | | | | |
| INTERNATIONAL CLASSIFICATION | | 424 | 657 | | | | |
| A61K | 9/00 | 510 | 112 | | | | |
| A61K | 9/08 | 514 | 840 | 912 | 915 | | |
| A61K | 33/22 | | | | | | |

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|---|--|------------------|-----------------|--|---------------------------|
| <input checked="" type="checkbox"/> TERMINAL DISCLAIMER | DRAWINGS | | | CLAIMS ALLOWED | |
| | Sheets Drwg. 0 | Figs. Drwg. 0 | Print Fig. — | Total Claims 21 | Print Claim for O.G. 1 |
| <input type="checkbox"/> a) The term of this patent subsequent to _____ (date) has been disclaimed. | _____ (Assistant Examiner) _____ (Date) | | | NOTICE OF ALLOWANCE MAILED 4/24/00 | |
| <input checked="" type="checkbox"/> b) The term of this patent shall not extend beyond the expiration date of U.S. Patent. No. <u>5,348,620</u> . | ROBERT H. HARRISON PRIMARY EXAMINER Art Unit 1617 Robert H. Harrison (Primary Examiner) 04/24/00 (Date) | | | ISSUE FEE Amount Due: 1210.00 Date Paid: 7/6/00 | |
| <input type="checkbox"/> c) The terminal _____ months of this patent have been disclaimed. | _____ (Legal Instruments Examiner) 5/5/00 (Date) | | | ISSUE BATCH NUMBER 1253 | |

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 6. ~~Personal Desc~~ ~~6-10-99~~ 46.
 7. ~~Warrant~~ ~~8/10/99~~ ~~82~~ 47.
 8. ~~Key Time~~ ~~Feb. 1, 2000~~ 48.
 9. ~~Key Room~~ ~~Feb. 1, 2000~~ 49.
 10. ~~Key Room~~ ~~02/01/00~~ 50.
 11. ~~Key Room~~ ~~9/24/00~~ 51.
 12. ~~AMT (C)~~ ~~6-27-00~~ 52.
 13. ~~Notice of Entry~~ ~~6-27-00~~ 53.
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| | Above to date | 08/24/00 | Per U |

| INTERFERENCE SEARCHED | | | |
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| Class | Sub. | Date | Exmp. |
| 514 | 840 | 08/24/00 | Per U |
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| 424 | 657 | ↓ | ↓ |
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