



Pharmacology / Toxicology Review Memorandum (Final)

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From: Jin Hyen Baek, Ph.D., Pharmacologist, LBVB, DBCD, OBRR, CBER

Through: Abdu I. Alayash, Ph.D., Lab Chief, LBVB, DBCD, OBRR, CBER

Through: Orijei Illoh, M.D., Director, DBCD, OBRR, CBER

To: Lorraine Wood, RPMS, OMPT, OBRR, CBER

Subject: BLA 125606\35- Extractables and leachables study review of (b) (4) for restoring and maintaining circulation blood volume

Sponsor: Bio Products Laboratory Ltd.

Dagger Lane, Elstree, Hertfordshire, WD6 3BX, United Kingdom

Recommendation: The test results of extractable materials from a 32 mm halobutyl stopper and uncolored (b) (4) glass container are acceptable. However, the sponsor needs to address the safety of the leachable materials that occur with the final drug products within the final container closure system. Leachables should be evaluated at the final shelf-life of the drug product. The study results should be submitted as a post-marketing commitment (PMC) submission within 36 months after approval.

The sponsor commitment: Bio Products Laboratory commits to provide study results for leachables evaluated at the final shelf life for drug product Albuminex (Human Albumin Solution) 5% and 25% as a post marketing commitment, submitting study results within 36 months of approval. Final Report Submission: June 1, 2021

Rational: Although the sponsor performed a extractables study on the use of the stopper and the glass container and identified potential leachables, the safety of leachables in the final drug product within the final container closure system has not been assessed. Since the stopper and glass container is in contact with the drug product, the sponsor should perform a study to access the safety of leachables in the final product at the end of the allowable storage limit.

Background:

(b) (4) final container closure system uses a 32 mm halobutyl stopper and uncolored (b) (4) glass container. The intent of this study was to conduct an extractables study on a glass vial and a rubber stopper. The glass vial is a (b) (4) glass. The stopper is a (b) (4) 32mm (b) (4) bromobutyl gray stopper. A semi-quantitative extractables profile of each component was determined. The scope of the

study included (b) (4) extraction of the stopper and glass vials with various techniques, and then analysis by (b) (4).

Executive Summary

The original BLA submission did not include study reports describing evaluation of the extractables from the final container closer system. Additionally, leachable studies of the drug product within the container closer system over the duration of the shelf life were not provided. FDA issued an information request for the study reports detailing the results of extractable and full shelf life leachable studies on the 23rd March, 2017. The sponsor responded to this IR with the extractable study report on 25th May, 2017. The sponsor is currently in the process of assessing shelf life leachable materials, however this cannot be completed prior to product approval. Therefore, these data could not be provided in the final BLA review. FDA is requesting a post marketing commitment from the sponsor to provide leachable results obtained over the duration of the product shelf life. These data should be submitted within 36 months after approval.

Summary of extractables study reports

The stopper was subjected to (b) (4)

[REDACTED]

Review conclusions and comments

The test results of extractable materials from a 32 mm halobutyl stopper and uncolored (b) (4) glass container are acceptable. However, the sponsor needs to address the safety of the leachable materials that occur with the final drug products within the final container closure system. Leachables should be evaluated at the final shelf-life of the drug product. The study results should be submitted as a post-marketing commitment (PMC) submission within 36 months after approval.

Study Report: Extractable Study of Glass Vials and a 32 mm 4023/50 Gray Stopper

Final report: February 27, 2017

Study by (b) (4)

Test articles

