## **BBRAUN**

B. Braun Melsungen AG Division Hospital Care CoE Pharmaceuticals

34209 Melsungen Germany

Contact:	David Nietmann
Phone:	+49 5661 71-7300
Email: Internet:	david.nietmann@bbraun.com http://www.bbraun.com
Date:	April 29 <sup>th</sup> , 2020

To whom it may concern

## Sterility of Ecobag® IV

Dear Sir or Madam,

Thank you very much for your request concerning the sterility of Ecobag® IV.

Ecobag<sup>®</sup> IV is sterilized within its overwrap with moist heat in overkill conditions (F0 $\geq$ 15 minutes).

Internal microbiological studies evaluated the microbial reduction in the space between the primary bag and the overwrap. As recommended by ISO 11138-3:2007, *Geobacillus stearothermophilus* was used as a biological indicator. Based on internal test results, the sterilization process achieves a SAL between primary bag and overwrap of approx. 10<sup>-5</sup>.

According to European Pharmacopoeia, chapter 5.1.1, sterility is the absence of viable microorganisms defined by a Sterility Assurance Level (SAL) less than or equal to  $10^{-6}$ . For this reason, the surface of the primary bag Ecobag<sup>®</sup> IV cannot be formally claimed as sterile. Nevertheless, the biological indicator used for these studies (*G. stearothermophilus*), is an extremely heat-resistant germ which is not representative of the common flora of B. Braun production areas.

We herewith confirm that based on internal test results, the sterilization of Ecobag<sup>®</sup> IV achieves a significant microbial load reduction in the space between the primary bag and the overwrap. Therefore, opening an overwrapped Ecobag<sup>®</sup> IV in a controlled atmosphere area presents extremely low contamination risks.

B. Braun does not take any responsibility for an inappropriate storage or inappropriate use of our Infusion solutions.

Please do not hesitate to contact us if you have any further questions.

Chairman of Supervisory Board: Prof. Dr. h.c. Ludwig Georg Braun **Executive Board:** Anna Maria Braun, LL.M. (Chief Executive Officer) Dr. Annette Beller Dr. Meinrad Lugan

Caroll H. Neubauer, LL.M. Dr. Joachim Schulz Markus Strotmann Corporate Office: Melsungen Register Court: Local Court Fritzlar HRB 11 000 WEEE-Reg.-No. DE 42690900 Address: B. Braun Melsungen AG Carl-Braun-Straße 1 34212 Melsungen Germany

## **BBRAUN**

Page 2

Yours sincerely,

B. Braun Melsungen AG

i. A.

D. Nietmann

David Nietmann Product Manager Irrigation Solutions, LVP Bags & LVP Glass Bottles

i. A.

71

Dr. Bruno Legrand Strategic Project Manager Strategic Projects

Chairman of Supervisory Board: Prof. Dr. h.c. Ludwig Georg Braun **Executive Board:** Anna Maria Braun, LL.M. (Chief Executive Officer) Dr. Annette Beller Dr. Meinrad Lugan

Caroll H. Neubauer, LL.M. Dr. Joachim Schulz Markus Strotmann **Corporate Office: Melsungen** Register Court: Local Court Fritzlar HRB 11 000 WEEE-Reg.-No. DE 42690900

Address: B. Braun Melsungen AG Carl-Braun-Straße 1 34212 Melsungen Germany