

This is a preview of "ISO 3826-4:2015". [Click here to purchase the full version from the ANSI store.](#)

First edition  
2015-08-01

---

---

# Plastics collapsible containers for human blood and blood components —

## Part 4: Aphaeresis blood bag systems with integrated features

*Poches en plastique souple pour le sang et les composants du sang —  
Partie 4: Systèmes de poches d'aphérèse pour le sang avec  
accessoires intégrés*



Reference number  
ISO 3826-4:2015(E)

© ISO 2015

This is a preview of "ISO 3826-4:2015". [Click here to purchase the full version from the ANSI store.](#)



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2015, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Ch. de Blandonnet 8 • CP 401  
CH-1214 Vernier, Geneva, Switzerland  
Tel. +41 22 749 01 11  
Fax +41 22 749 09 47  
copyright@iso.org  
www.iso.org

This is a preview of "ISO 3826-4:2015". [Click here to purchase the full version from the ANSI store.](#)

## Contents

	Page
<b>Foreword</b> .....	<b>v</b>
<b>Introduction</b> .....	<b>vi</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>2</b>
<b>4 Dimensions</b> .....	<b>4</b>
<b>5 Design</b> .....	<b>10</b>
5.1 Leucocyte filter.....	10
5.2 Pilot samples.....	10
5.3 Access line needle and return line needle.....	11
5.4 Needle stick protection device.....	11
5.5 Pre-collection sampling device.....	11
5.6 Red blood cell storage bag.....	11
5.7 Plasma storage bag.....	12
5.8 Platelet storage bag.....	12
5.9 Post-collection sampling device.....	12
5.10 Collection and transfer tube(s).....	12
5.11 Outlet port(s).....	13
5.12 Suspension.....	13
<b>6 Requirements</b> .....	<b>13</b>
6.1 General.....	13
6.2 Physical requirements.....	14
6.2.1 Conditions of manufacture.....	14
6.2.2 Sterilization.....	14
6.2.3 Transparency.....	14
6.2.4 Coloration.....	14
6.2.5 Thermal stability.....	14
6.2.6 Water vapour transmission for plastics containers prefilled with storage solution or anticoagulant.....	14
6.2.7 Resistance to leakage.....	15
6.2.8 Insertion force.....	15
6.2.9 Pull force.....	15
6.2.10 Leakage after closure piercing.....	15
6.2.11 Particulate contamination.....	15
6.3 Chemical requirements.....	16
6.3.1 Requirements for the raw container or sheeting.....	16
6.3.2 Requirements for the test fluid.....	16
6.4 Biological requirements.....	17
6.4.1 General.....	17
6.4.2 Impermeability for microorganisms.....	17
6.4.3 Compatibility.....	17
<b>7 Packaging</b> .....	<b>17</b>
7.1 General.....	17
7.2 Shelf-life.....	17
7.3 Over-package materials.....	17
7.4 Over-package sealing.....	17
7.5 Over-package strength.....	18
7.6 Arrangement of components in the over-package.....	18
<b>8 Labelling</b> .....	<b>18</b>
8.1 General.....	18
8.2 Label on plastics containers.....	18

This is a preview of "ISO 3826-4:2015". [Click here to purchase the full version from the ANSI store.](#)

8.3	Label on over-package.....	18
8.4	Package insert or instructions for use.....	19
8.5	Label on shipping box.....	19
8.6	Label requirements.....	20
<b>9</b>	<b>Anticoagulant and/or preservative solution.....</b>	<b>20</b>
<b>Annex A</b>	<b>(normative) Chemical tests.....</b>	<b>21</b>
<b>Annex B</b>	<b>(normative) Physical tests.....</b>	<b>26</b>
<b>Annex C</b>	<b>(normative) Biological tests.....</b>	<b>28</b>
<b>Bibliography</b>	.....	<b>31</b>

This is a preview of "ISO 3826-4:2015". Click here to purchase the full version from the ANSI store.

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 76, *Transfusion, infusion and injection, and blood processing equipment for medical and pharmaceutical use*.

ISO 3826 consists of the following parts, under the general title *Plastics collapsible containers for human blood and blood components*:

- *Part 1: Conventional containers*
- *Part 2: Graphical symbols for use on labels and instruction leaflets*
- *Part 3: Blood bag systems with integrated features*
- *Part 4: Aphaeresis blood bag systems with integrated features*

## Introduction

In some countries, national pharmacopoeias or other government regulations are legally binding and these requirements take precedence over this part of ISO 3826.

The manufacturers of the plastics container or the suppliers are expected to disclose in confidence to the national control authority, if requested by them, full details of the plastics material(s) and the components of the materials and their methods of manufacture, details of manufacture of the plastics containers including the chemical names and quantities of any additives, whether incorporated by the manufacturer of the plastics containers or present in the raw material, as well as full details of any additives that have been used.

Universal leucocyte depletion is mandatory in various countries. This part of ISO 3826 is considered a basic document for other standards which include technical innovations.

The requirements in this part of ISO 3826 are intended to

- a) ensure that the quality of blood and blood components is maintained as high as necessary,
- b) make possible efficient and safe collection, identification, storage, separation, and transfusion of the contents with special attention to reducing or minimizing the risks resulting from
  - contamination, in particular microbiological contamination,
  - air embolism,
  - errors in identification of plastics containers and any representative samples of contents, and
  - interaction between the plastics container and its contents,
- c) ensure functional compatibility when used in combination with transfusion sets as specified in ISO 1135-4 and ISO 1135-5, and
- d) provide a package with appropriate resistance to breakage and deterioration.