

WORLD INTELLECTUAL PROPERTY ORGANISATION
(WIPO STAMP)
International Office

<p>(51) International Patents Classification: B05B 11/00, B65D 83/00</p>	<p>A1</p>	<p>(11) International Publication No. WO 00/27543</p>	
		<p>(43) Date of International Publication: 18 May 2000 (18.05.00)</p>	
<p>(21) International File Ref.: PCT/EP99/08542</p>		<p>(81) Designated States: AU, BG, BR, CA, CN, CZ, EE, HR, HU, ID, IL, IN, JP, KR, LT, LV, MX, NO, NZ, PL, RO, SG, SI, SK, TR, UA, US, UZ, VN, YU, ZA, Eurasian Patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</p>	
<p>(22) Date of International Application: 8 November 1999 (08.11.99)</p>			
<p>(30) Data relating to priority: 198 51 404.2 7 November 1998 (07.11.98) DE</p>			
<p>(71) Applicant (for all designated countries except USA): BOEHRINGER INGELHEIM INTERNATIONAL GMBH [DE/DE]; D-55216 Ingelheim am Rhein (DE).</p>		<p>Published <i>With International Search Report.</i> <i>Before expiry of the deadline permitted for amendments to the claims; publication is repeated if amendments are made.</i></p>	
<p>(72) Inventor; and (75) Inventor/Applicant (for US only):</p>			
<p>HOCHRAINER, Dieter [AT/DE]; Josef-Knettel-Strasse 4a, D-55411 Bingen am Rhein (DE). KLADDERS, Heinrich [DE/DE]; Ludwig-Wolker-Strasse 30, D-45468 Muelheim (DE). ZIERENBERG, Bernd [DE/DE]; Goethestrasse 1, D-55411 Bingen am Rhein (DE). EICHER, Joachim [DE/DE]; Gustav-Korthen-Allee 24, D-44227 Dortmund (DE). ESSING, Martin [DE/DE]; Adenauer-Allee 36a, D-46309 Bocholt (DE). HAUSMANN, Matthias [DE/DE]; Schwerter Strasse 306, D-44287 Dortmund (DE). WUTTKE, Gilbert [DE/DE]; Am Hoehweg 100, D-44149 Dortmund (DE).</p>			
<p>(74) Attorney: LAUDIEN, Dieter; Boehringer Ingelheim GmbH, B Patente, D-55216 Ingelheim am Rhein (DE).</p>			
<p>(54) Title: PRESSURE-COMPENSATING DEVICE FOR A DOUBLE CONTAINER</p>			
<p>(57) Abstract:</p>			
<p>Double containers consisting of an inner container (2) and a diffusion-tight outer container (1) are used for medical fluids. The inner container collapses when the fluid is removed. A pressure-compensating device is required to compensate the pressure between the gas chamber (15) that is located between the inner and outer container and the surrounding area of the double container, whereby the loss of fluid is kept to a minimum by diffusion from the collapsible inner container. At least one duct (7) that links the gas-filled space to the surrounding area of the double container is used for this purpose. The time constant for compensation of a pressure differential of several millibars is several hours. This is achieved by selecting the length of the passage and cross-section thereof. The at least one passage can be produced individually or a plurality of passages can be provided in the form of pores in an open-pored sintered material or a permeable diaphragm. The pressure-compensating device enables the double container to be stored for years, and, if the fluid is removed in portions in a correct manner, it can be used for several weeks. During these periods, the amount of liquid in the inner container or the concentration thereof varies substantially less than if a double container known per se is used.</p>			