1. Name of Submitter: Hospira, Inc.
   275 North Field Drive
   Lake Forest, Illinois 60045
   Owner/Operator # 9063339

2. Manufacturer and Establishment Registration Number:
   Hospira, Inc. – Morgan Hill
   755 Jarvis Drive
   Morgan Hill, CA 95037
   Establishment Registration # 2921482

   Southmedic, Inc
   50 Alliance Blvd.
   Barrie
   Ontario L4M 5K3
   Canada
   Establishment Registration # 8022032

   Hospira Holdings de Costa Rica Ltd
   Zona Franca Global
   La Aurora De Heredia
   Costa Rica
   Establishment Registration # 9615050

3. Proprietary or Trade Name of Proposed Device:
   Hospira GemStar® Infusion Pump System with Hospira GemStar® Spring Assist
   Mechanism Lockbox

   Hospira GemStar® Pump Set with Injector, Two Integral Pressure-Activated Anti-Siphon
   Valves and Y-Extension with Backcheck Valve, 97 inch -SL

   Hospira GemStar® Pump Set with Injector, Two Integral Pressure-Activated Anti-Siphon
   Valves, 99 inch-SL

4. Common Name: Infusion Pump with Infusion Pump Lockbox
   IV Administration Sets

5. Device Classification, Pancode and ProCode:
   Class II, FRN (Infuser)
   Class II, FPA (IV Administration Sets)
   Class II, MRZ (Infusion Pump Lockbox)

6. Performance Standards: No performance standards have been established under Section 514 of the
   Food, Drug and Cosmetic Act for intravenous infusion pumps. Infusion pumps are listed in
   21 CFR 880.5725.
7. Intended Use:

The Hospira GemStar® Infusion Pump System with Hospira GemStar® Pump Sets and Hospira GemStar® Spring Assist Mechanism Lockbox is intended for use in intravenous arterial, subcutaneous short term epidural infusion and parenteral administration of general I.V. fluids, medications, nutritional fluids, and blood/blood products.

8. Indications for Use:

The Hospira GemStar® Infusion Pump System with Hospira GemStar® Pump Sets and Hospira GemStar® Spring Assist Mechanism Lockbox is intended for use in intravenous arterial, subcutaneous, short term epidural infusion and parenteral administration of general I.V. fluids, medications, nutritional fluids, and blood/blood products.

The indications for use include hospital, ambulatory, and home care environments. The pump must be used with sterile, dedicated, GemStar® administration sets.

9. Proposed Device Description:

The Hospira GemStar® Infusion Pump Systems are a family of single channel, software controlled, electromechanical infusion pumps that operate on a volumetric, piston driven, fluid displacement principle. An in-line cassette is used to meter IV fluids through sterile dedicated administration sets designed to be used exclusively with GemStar infusers. Power options included an AC main adaptor, a rechargeable battery pack, a docking station, and two disposable AA batteries. The user interface allows the healthcare practitioner to program fluid delivery through a variety of weight and medication based units. The pump displays provide visible indication of several functions, including active pump operations, alarm and program status, and the parameters of fluid flow. The infusers function as both pole mounted and ambulatory infusion pumps.

As of May 03, 2004, both the infusers and the dedicated GemStar® sets are manufactured and distributed by Hospira Incorporated, formerly the Hospital Products Division of Abbott Laboratories.

All Hospira GemStar® I.V. Infusion Pumps are single channel pumps that are available in the following configurations:

| Overview of GemStar® I.V. Infusion Pump Therapies and Configurations |
|-------------------------|-------------------------|-------------------------|
|                         | 7 Therapy Pump           | 6 Therapy Pump           | Pain Management Pump |
| List #:                 | 13000-04                 | 13100-04                 | List #: 13150-04     |
| TPN (Total Parenteral Nutrition) |                         | TPN (Total Parenteral Nutrition) | Pain Management Only |
| Pain Management         | Intermittent             | Continuous               |
| Intermittent            |                         | Weight-Dosed             |
| Continuous              | Weight-Dosed             | ml/hr Only               |
| Variable Time           |                         | Variable Time            |
| ml/hr Only              |                         |                         |
### 10. Predicate Device Information:

Devices cleared for commercial distribution and determined to be appropriate for use as predicates are summarized in the following table.

<table>
<thead>
<tr>
<th>510(k) #</th>
<th>Product Name</th>
<th>Clearance Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>K023062</td>
<td>Abbott GemStar® Infusion Pump System</td>
<td>09/30/2002</td>
</tr>
<tr>
<td>K033576</td>
<td>Lifeshield® Primary IV Pump Set with Two Pressure Activated Anti-Siphon Valves</td>
<td>12/09/2003</td>
</tr>
</tbody>
</table>

### 11. Comparison to Legally Marketed Device(s)

<table>
<thead>
<tr>
<th>Factors</th>
<th>Subject Device(s)</th>
<th>Predicate Device(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intended Use</td>
<td>Intended for use in intravenous arterial, subcutaneous, short term epidural infusion and parenteral administration of general I.V. fluids, medications, nutritional fluids, and blood/blood products.</td>
<td>Same as PCA Lockbox (For pain management using PCA Vials only)</td>
</tr>
<tr>
<td>Indications for Use</td>
<td>Intended for use in intravenous arterial, subcutaneous, short term epidural infusion and parenteral administration of general I.V. fluids, medications, nutritional fluids, and blood/blood products. The indications for use include hospital, ambulatory, and home care environments. The pump must be used with sterile, dedicated, GemStar® administration sets.</td>
<td>Same</td>
</tr>
<tr>
<td>Operating Principle</td>
<td>Volumetric, piston driven, fluid displacement principle. Stepper motor with in-line cassette meters IV fluids through sterile dedicated administration sets. Programmable fluid delivery through a variety of weight and medication based units. Visible indication of several functions, including active pump operations, alarm and program status, and the parameters of fluid flow.</td>
<td>Same</td>
</tr>
<tr>
<td>Administration Sets and Fluid Contact Materials</td>
<td>Sterile, dedicated, non-pyrogenic, latex-free &quot;GemStar&quot; administration sets.</td>
<td>Different (Two new dedicated pain management sets for use with the SAM Lockbox only)</td>
</tr>
<tr>
<td>Physical Features</td>
<td>Materials, Size, Weight, Input Lines, Output Lines, Power Sources, Battery Type, Power Cord</td>
<td>Same</td>
</tr>
<tr>
<td>Environmental Features</td>
<td>Operating Temperature, Storage Temperature, Relative Humidity, Pressure</td>
<td>Same</td>
</tr>
</tbody>
</table>
Hospira GemStar® Infusion Pump System
Special 510(k) / March 2005

<table>
<thead>
<tr>
<th>Factors</th>
<th>Subject Device(s)</th>
<th>Predicate Device(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hospira GemStar® Infusion Pump System with Hospira GemStar® Spring Assist Mechanism Lockbox</td>
<td>Hospira GemStar® Infusion Pump System with Lockbox</td>
</tr>
<tr>
<td>Performance Features</td>
<td>Delivery Rates, VTBI Range, Dose Units, Delivery Accuracy, Delivery Modes, Therapies, Distal Occlusion Limits, Proximal Occlusion Limits, Alarm Types and Conditions, Default Drug Library.</td>
<td>Same</td>
</tr>
<tr>
<td>BioMed Settings</td>
<td>Configuration settings available for customization.</td>
<td>Same</td>
</tr>
<tr>
<td>Accessories (Optional)</td>
<td>GemStar Connect™ Remote Communication Software (Clinician Kit, Patient Kit), Docking Station (2), Bolus Cord, Pole Clamps (2), Battery Pack (2), Lockboxes (4), AC Mains Adapters (2), Carrying Cases (4) and Carrier, Serial Cable</td>
<td>Different (New SAM Lockbox)</td>
</tr>
</tbody>
</table>

12. Statement of Substantial Equivalence:

Similarities:
1) Same intended use and indications for use.
2) Same fundamental scientific technology.
3) Same physical, operational, and performance specifications.
4) Same materials of construction for all infuser components and administration sets.

13. Statement of Safety and Effectiveness
Hospira GemStar® Infusion Pump System with Hospira GemStar® Spring Assist Mechanism Lockbox, the Hospira GemStar® Pump Set with Injector, Two Integral Pressure-Activated Anti-Siphon Valves and Y-Extension with Backcheck Valve, 97 inch -SL and the Hospira GemStar® Pump Set with Injector, Two Integral Pressure-Activated Anti-Siphon Valves, 99 Inch-SL meet the functional claims and intended use as described in the product labeling, and are as safe and effective in terms of substantial equivalence as the predicate devices described in the submission.

Prepared and submitted by:
Yuliya Matlin
Senior Specialist, Global Device Regulatory Affairs
Hospira, Inc.
275 North Field Drive
Lake Forest, IL 60045
Phone: 224/212-4857
Fax: 224/212-5401
Ms. Yuliya Matlin  
Senior Specialist, Global Device Regulatory Affairs  
Hospira, Incorporated  
275 North Field Drive  
Lake Forest, Illinois 60045  

Re: K051079  
Trade/Device Name: Hospira GemStar Infusion Pump System with Hospira  
GemStar Spring Assist Mechanism Lockbox  
Regulation Number: 880.5725  
Regulation Name: Infusion Pump  
Regulatory Class: II  
Product Code: FRN, FPA, MRZ  
Dated: April 26, 2005  
Received: April 27, 2005  

Dear Ms. Matlin:  

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.  

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.
Please be advised that FDA’s issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act’s requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (240) 276-0115. Also, please note the regulation entitled, “Misbranding by reference to premarket notification” (21 CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address http://www.fda.gov/cdrh/industry/support/index.html.

Sincerely yours,

[Signature]
Chiu Lin, Ph.D.
Director
Division of Anesthesiology, General Hospital,
Infection Control and Dental Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure
Indications for Use Statement

510(k) Number (if known) \( \text{\%051079} \)

Device Name:
- Hospira GemStar® Infusion Pump System with Hospira GemStar® Spring Assist Mechanism Lockbox
- Hospira GemStar® Pump Set with Injector, Two Integral Pressure-Activated Anti-Siphon Valves and Y-Extension with Backcheck Valve, 97 inch -SL
- Hospira GemStar® Pump Set with Injector, Two Integral Pressure-Activated Anti-Siphon Valves, 99 Inch-SL

Indications for Use
The Hospira GemStar® Infusion Pump System with Hospira GemStar® Pump Sets and Hospira GemStar® Spring Assist Mechanism Lockbox is intended for use in intravenous arterial, subcutaneous, short term epidural infusion and parenteral administration of general I.V. fluids, medications, nutritional fluids, and blood/blood products.

The indications for use include hospital, ambulatory, and home care environments. The pump must be used with sterile, dedicated, GemStar® administration sets.

Prescription Use ___X___ AND/OR Over-The_Counter Use
(Part 21 801 Subpart D) (Part 21 CFR 807 Subpart C)

PLEASE DO NOT WRITE BELOW THIS LINE – CONTINUE ON ANOTHER PAGE IF NEEDED

Concurrence of CDRH, Office of Device Evaluation (ODE)

[Signature]
(Division Sign-Off)
Division of Anesthesiology, General Hospital
Infection Control, Dental Devices

510(k) Number: \( \text{\%051079} \)