

# MATERIAL SAFETY DATA SHEET

**PRODUCT:** PERSIST Brand Povidone-Iodine Prep  
Topical Antimicrobial Finished Product

**Date:** 04/19/10

**Revision #:** 7



## PRODUCT AND COMPANY INFORMATION – SECTION 1

### Company Identification

**Name:** BD Medical  
**Address:** 9450 South State Street  
Sandy, UT 84070

**Product Name** Product Catalog No.  
**BD IV Start Pak w/Persist Catalog No.:** 386170, 386172, 386175, 386179,  
386180, 386190  
**BD Persist Stand alone** 386401, 386402

### FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT:

**In the continental U.S., call:** 801.565.2300 (24 hour)  
**For additional information, call:** 888.237.2762  
(M-F, 8:00 AM-4:30 PM EST)

## COMPOSITION INFORMATION – SECTION 2

**Product Code:** NDC 5940711011

**Chemical Name:** 2-Pyrrolidinone 1-ethenyl-homopolymer compound with Iodine in Ethanol

**Synonym:** PVP-I with Ethyl Alcohol

<u>Chemical Name</u>	<u>Percent Wt.</u>	<u>CAS Number</u>	<u>RTECS Number</u>
PVP-I	10%	25655-418	TR1579600
Ethanol	> 70.0	64-17-5	KQ6300000

### OSHA REGULATORY STATUS

	This material is classified as not hazardous under OSHA regulations.
	While this material is not classified as hazardous under OSHA regulations, this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of the product.
X	This material is classified as hazardous under OSHA regulations.

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## HAZARDS IDENTIFICATION – SECTION 3

### EMERGENCY OVERVIEW

- Keep out of eyes, ears, and mouth.
- Keep out of reach of children.
- For external use only.
- Caution! Flammable Liquid.

### POTENTIAL HEALTH EFFECTS

**Eyes:** May cause irritation and/or permanent damage.

**Skin:** May cause dermatitis, irritation, and defatting of skin.  
Iodine may be absorbed through skin causing severe irritation.

**Inhalation:** ETHANOL: May cause headaches, drowsiness, fatigue, narcosis, loss of appetite, inability to concentrate, and irritation of the respiratory tract.  
IODINE: May cause severe irritation or burns of the respiratory tract, pulmonary edema, or lung inflammation.

**Ingestion:** May cause stomach pains, nausea, vomiting, diarrhea, and depression of the central nervous system.

**Chronic Effects:** ETHANOL: Liver damage, anemia, reproductive and teratogenic problems.  
IODINE: Damage to lungs, thyroid gland, and blood.

## FIRST AID MEASURES – SECTION 4

**SEEK IMMEDIATE MEDICAL ATTENTION  
FOR ALL CASES OF OVEREXPOSURE.**

### FIRST AID MEASURES

**Eyes:** Flush immediately with copious amounts of running water for at least 15 minutes.

**Skin:** Immediately remove any contaminated clothing. Flush the affected area with copious amounts of running water.

**Inhalation:** Immediately remove victim to fresh air. Support breathing as needed, preferably mouth to mouth. If oxygen is needed, it should be administered by a trained professional.

**Ingestion:** Give water or milk to dilute if victim is conscious and able to swallow. Never give anything by mouth if the victim is unconscious or having convulsions. Induce vomiting only as advised by physician or Poison Control Center.

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## FIRE FIGHTING MEASURES – SECTION 5

<b><u>NFPA Rating</u></b>		
Health	Fire	Reactivity
1	3	0

### **Flammability Properties**

<b>Flash Point / Method:</b>	55°F ASTM D-56 (Ethanol)		
<b>Flammability Limits:</b> (in air % by volume)	<b>LEL:</b> 3.3% (Ethanol)	<b>UEL:</b> 19% (Ethanol)	
<b>Autoignition Temperature:</b>	U/K		
<b>Hazardous Combustion Products:</b>	U/K		
<b>Extinguishing Media:</b>	Dry chemical, foam, or carbon dioxide. Water may be ineffective by spray should be used to keep fire exposed containers cool, to disperse vapors from leaks/spills that have not yet ignited, and to flush spills away from exposures and to dilute spills to nonflammable mixtures.		
<b>Firefighting Instructions:</b>	As in any fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.		
<b>Unusual Fire and Explosion Hazards:</b>	Burning packaging materials may cause dense smoke and fumes.		

## ACCIDENTAL RELEASE MEASURES - SECTION 6

Treat large spills with sodium thiosulfate prior to flushing to a sanitary sewer if local and state regulations permit. Absorbent material used for clean-up should be disposed of as hazardous waste.

## HANDLING & STORAGE – SECTION 7

- Handling:** For external use only. Keep out of eyes, ears, and mouth.
- Storage:** Store at room temperature (68°F to 77°F). Avoid excessive heat (104°F). Store away from oxidizers, ignition sources, and explosives. Consult local fire codes for additional storage information.

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## EXPOSURE CONTROLS / PERSONAL PROTECTION – SECTION 8

**Engineering Controls:** General and/or local exhaust to maintain exposure below the TLV.

### Personal Protective Equipment

**Eye/Face Protection:** Safety goggles/glasses recommended.

**Skin Protection:** Latex gloves recommended for normal use. Nitrile gloves and chemical-resistant impervious protective clothing are recommended for spill cleanup

**Respiratory Protection:** Not required under normal usage. Use approved SCBA in spill cleanup situations in accordance with 29 CFR 1910.134

**General Hygiene Considerations:** Keep out of eyes, ears, and mouth. For professional and hospital use only. Keep out of reach of children.

### Exposure Guidelines

IODINE			
<b>OSHA Ceiling:</b>	0.1 ppm	<b>ACGIH Ceiling:</b>	0.1 ppm
ETHANOL			
<b>OSHA PEL:</b>	1000 ppm	<b>ACGIH TLV:</b>	1000ppm

## PHYSICAL & CHEMICAL PROPERTIES – SECTION 9

CONSTITUENT:	Iodine	Ethanol	Product
<b>Appearance,</b>	N/A	N/A	Dark, reddish
<b>Physical State:</b>			brown liquid
<b>Odor:</b>	N/A	N/A	Pleasant, mild
<b>Molecular Weight:</b>	U/K	U/K	U/K
<b>pH:</b>	U/K	U/K	U/K
<b>Boiling Point:</b>	365°F	173°F	U/K
<b>Melting Point:</b>	N/A	N/A	N/A
<b>Vapor Pressure</b> (mm Hg):	0.3 mm @ 77°F	44 mm @ 68°F	U/K
<b>Vapor Density</b> (Air=1):	U/K	1.59	U/K
<b>Solubility in Water:</b>	Very slightly	Miscible	Completely soluble
<b>% Volatile By</b> <b>Volume:</b>	U/K	100%	U/K

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## STABILITY & REACTIVITY – SECTION 10

**Stability:** Stable at normal temperatures and pressures.  
**Conditions to Avoid:** Heat  
**Materials to Avoid:** Strong oxidizers, potassium dioxide, bromine pentafluoride, acetyl chloride, platinum, sodium.  
**Hazardous Decomposition Products:** Heat to decomposition may yield free iodine.  
**Hazardous Polymerization:** Will not occur.

## TOXICOLOGICAL INFORMATION – SECTION 11

**Iodine** Rat (Oral) LD50: 14 Gm/Kg  
**Ethanol** Rat (Oral) LD50: 13.7 Gm/Kg

## ECOLOGICAL INFORMATION – SECTION 12

No significant ecological information is available for this substance.

## DISPOSAL CONSIDERATION – SECTION 13

This product contains listed hazardous waste and should be disposed of by a permitted hazardous waste disposal company. Follow all current Federal, state, and local regulations and guidelines.

## TRANSPORT INFORMATION - SECTION 14

### **DOT CLASSIFICATION:**

Small Quantity, Class 3  
Refer to 49CFR 173.4 for additional information.

### **IATA CLASSIFICATION:**

Dangerous Goods in Excepted Quantities, Class 3, UN 1170  
Refer to IATA Section 2.7 for additional information.

### **IMDG CLASSIFICATION:**

Ethyl Alcohol Solution, Class 3, UN 1170, PGII, Limited Quantity  
Refer to IMDG Code Section 3 for additional information.

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## REGULATORY INFORMATION – SECTION 15

### US REGULATIONS

<b>OSHA</b>	Listed (Ethanol, Iodine) on Table Z-1 (Limits for Air Contaminants)
<b>TSCA</b>	Not Listed
<b>CERCLA</b>	Not Listed
<b>SARA Title III</b>	Not Listed

### STATE REGULATIONS

<b>MA Substance List</b>	Listed (Ethanol, Iodine)
<b>NJ Right-to-Know Hazardous Substance List</b>	Listed (Ethanol, Iodine)
<b>PA Hazardous Substance List</b>	Listed (Ethanol, Iodine)

## OTHER INFORMATION - SECTION 16

### Definitions:

**U/K** = Unknown

**N/A** = Not Applicable

To the best of our knowledge, the information contained herein is accurate. However, neither Becton Dickinson nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. The possibility exists that the EU will not recognize this MSDS due to the fact that several components of the MSDS are reflective of ANSI Z-400.1-1998. Although ILO (International Labor Organization) has adopted ANSI Z-400.1-1998, ultimate disposition lies with the competent authority.

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## VERSION HISTORY

Version	Description	ECO Number	Version Prepared By
7	Review and Update: Removed obsolete catalog numbers from section 1 386185, 386199, 383702, 383507, 383508, 383509 and 386510. Moved 386411, 386412 and 386413 to D12554 Persist Plus/CHG MSDS. Updated date and Revision in the Header.	ECO123316	Rachel LeBlanc Janet Boggess
6	<p>Routine Review, update to current format. To stay consistent with other MSDS's, include Version Number in the header..</p> <p>Changes made to Section 1: Update Company name to BD Medical Systems from BD Medical. Under Product Name Change Standalones to Stand alone.</p> <p>Changes made to Section 2: Under Chemical Name, change Iodine to PVP-I, Percent Wt. From 1.0 to 10%., CAS Number from 7553-56-2 to CAS # 25655-41-8 and the RTECS Number from NN1575000 to TR1579600.</p> <p>Changes made to section 3: in the Emergency Overview box add bullet for Caution! Flammable Liquid.</p> <p>Changes made to section 14: Change IMDG Classification: from the current "Dangerous Goods in Limited quantities of Class 3. Refer to IMDG Code Volume 2, pages 47 and 192 for additional information." To Ethyl Alcohol Solution, Class 3, UN1170 PGII Limited Quantity Refer to IMDG Code Section 3 for additional information.</p> <p>Update Version History table to the current format by removing the Document Version date which is no longer required since this information prints off from QDMS in the form of a watermark.</p>	ECO88586	Rachel Leblanc Janet Boggess
01-02	In the header of the documents. The word "Povidone" was spelled incorrectly (Providone) & was overlooked by those approving the prior revision on ECO 19696. This ECO is to correct the spelling. Reason for Change: Typographical Error.	19814	Nancy Watters