

# 3M™ DuraPrep™

Surgical Solution

(Iodine Povacrylex [0.7% available iodine] and Isopropyl Alcohol, 74% w/w)

Patient Preoperative Skin Preparation

# 3M™ Ioban™ 2

Antimicrobial Incise Film



# Sterile Surface Resource Guide





## **Table of contents**

---

Introduction	4
On the subject of skin flora	5
Patient prep	7
Patient prep points	8
Sterile surface incise drapes	19
Sterile surface points	20
Drug facts	24

## Introduction

---

Because all of the most commonly used patient skin preps meet the FDA criteria for immediate microbial kill and persistent antimicrobial activity, it's important to look at other factors that may affect performance when choosing a prep for surgical patients. In this guide, you will find several ways to compare patient skin preps based on factors that affect their application, performance and cost-effectiveness.

You will also find helpful information here about incise drapes, for this reason: studies show that patient skin preps cannot completely eradicate bacteria, especially on patients with high preoperative bacterial counts.<sup>1-6</sup> That's why an infection prevention program isn't complete without an incise drape system that creates a sterile surface which is unachievable by using a patient prep alone.

To learn more, contact your 3M representative or call the 3M Health Care Helpline at 1-800-228-3957.

1. Cole and Bernard. "Relationship of Skin Carriage to Postoperative Staphylococcal Wound Infection." *Surgical Forum* 15 (1964) Massachusetts Gen'l Hosp., pp. 52-54.
2. Georgiade et al. "Efficacy of Povidone-Iodine in Preoperative Skin Preparation." *Journal of Hospital Infection* (1985) 6 (supplement), pp. 67-71.
3. Zdeblick et al. "Preoperative Use of Povidone-Iodine." *Clinical Orthopaedics and Related Research* #213 (December 1986), pp. 211-215.
4. Evans and Mattern. "The Bacterial Flora of the Antecubital Fossa: The Efficacy of Alcohol Disinfection of This Site, the Palm and the Forehead." *Journal of Investigative Dermatology* 75 (1980), pp. 140-143.
5. Dzubow et al. "Comparison of preoperative skin preparations for the face." *Journal of the American Academy of Dermatology* 19:4 (Oct. 1988), pp. 737-741.
6. Whyte et al. "The relative importance of routes and sources of wound contamination during general surgery." *Journal of Hospital Infection* 1991, Vol. 18, pp. 93-107.

## Skin flora is the leading cause of surgical site infection

**Resident flora continues to regrow as a natural part of skin health.**

The bacteria normally found on the skin are called “resident” bacteria. Resident bacteria exist on the skin of normal, healthy people, and are usually not harmful. This type of bacteria is always present and cannot be entirely removed from the skin surface.

Even the best skin preparation prior to surgery will not completely remove all bacteria. Creating a barrier reduces the risk of bacteria from migrating into the surgical wound. A barrier can be created by the application of an incise drape.

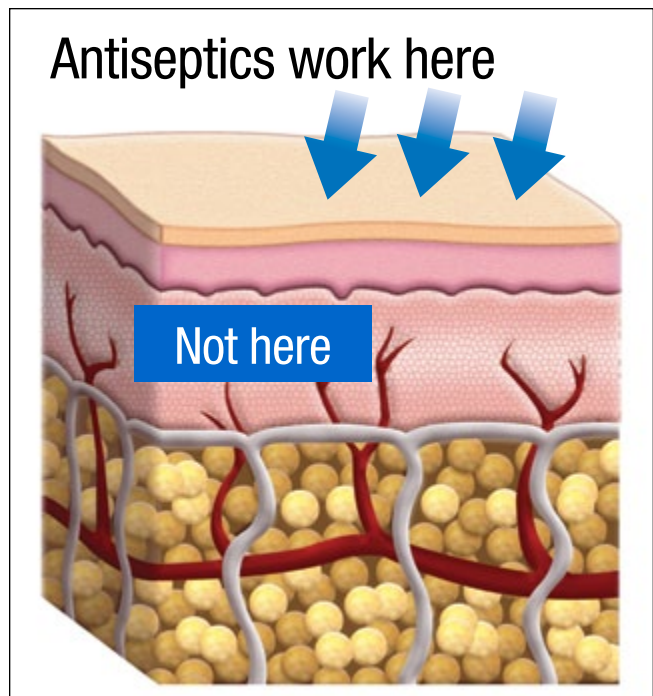


Fig. 1

## Bacteria can be a resourceful traveler.

Organisms that remain on the skin can potentially migrate into the surgical wound.

“Transient” bacteria can be transferred to the wound through contact with instruments, gloves or sponges.



Fig. 2

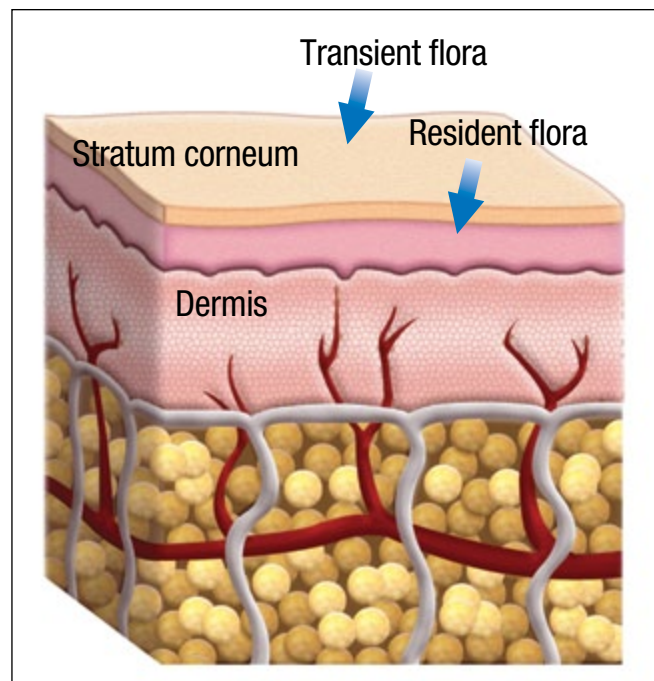


Fig. 3

## **3M™ DuraPrep™ Surgical Solution**

(Iodine Povacrylex [0.7% available iodine] and Isopropyl Alcohol, 74% w/w)

### **Patient Preoperative Skin Preparation**

---

Clarifying what's important in selecting a patient prep for your facility.

## Efficacy test requirements don't match real O.R. conditions.

**FDA Tentative Final Monograph (TFM)<sup>1</sup> testing is based on small samples of clean, dry skin that do not replicate surgical conditions.**

This *in vivo* test uses a cup scrub method on the abdomen and groin. Samples from the areas indicated in Figure 4 are taken and analyzed using the following:

- ASTM Designation: E 1173-01, Standard Test Method for Evaluation of Preoperative, Precatheterization, or Preinjection Skin Preparations

- ASTM Designation: E 1054-08, Standard Test Methods for Evaluation of Inactivators of Antimicrobial Agents – NEUTRALIZATION and baseline counts are required

This is important to note because although surgical patient preps may pass the TFM test, it does not mean they provide equal protection to patients in the operating room, when blood, saline and other fluids enter the scene.

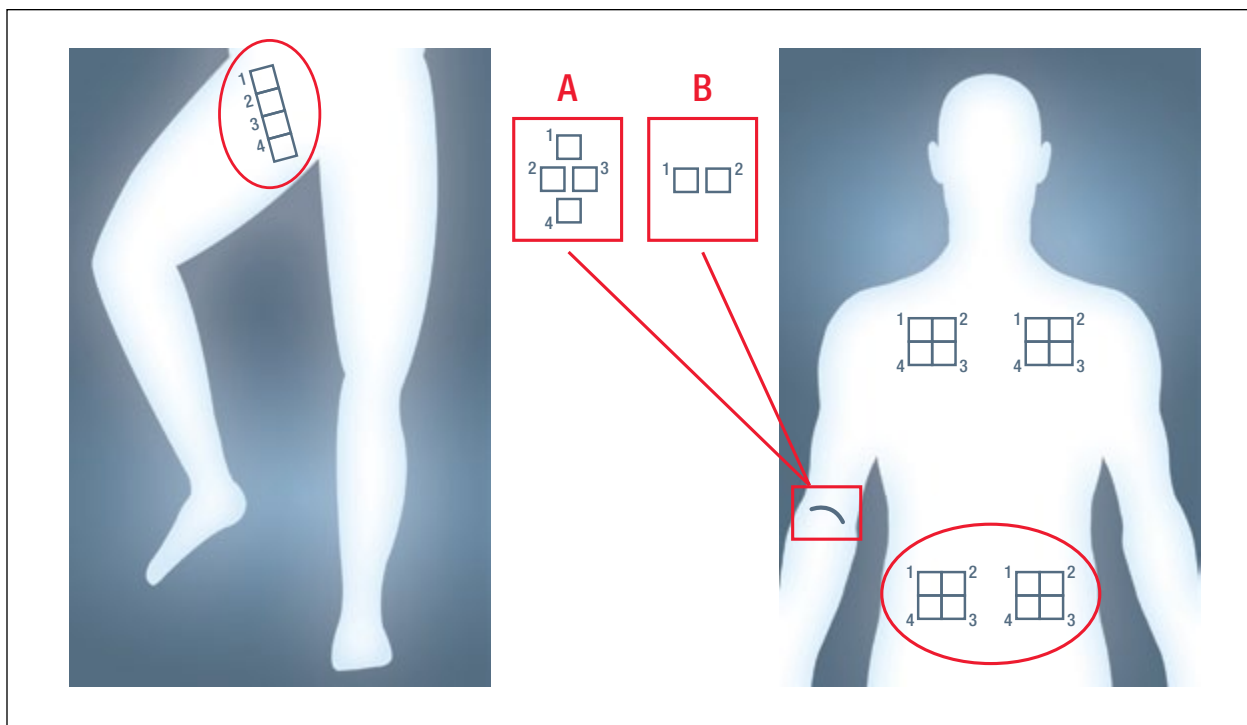


Fig. 4: Illustration of Approximate Sampling Locations on Treatment Sites: Inguinal Crease, Abdomen, Clavicular Region, and Median Cubital Region of Arm.

1. Health-Care Antiseptic Drug Product Tentative Final Monograph, Proposed Rule, 59 Federal Register, p. 31402-31452 (Friday, June 17, 1994)



## Some O.R. Teams are painting when they should be scrubbing.

Only one surgical patient prep is designed to be applied in a single, painted coat with no scrubbing: 3M™ DuraPrep™ Surgical Solution (Iodine Povacrylex [0.7% available iodine] and Isopropyl Alcohol, 74% w/w) Patient Preoperative Skin Preparation. Chlorhexidine gluconate preps must be scrubbed on to be properly applied, according to the manufacturers' application instructions.

Below are application instructions for DuraPrep solution and ChloraPrep® Patient Preoperative Skin Preparation 2% Chlorhexidine Gluconate (CHG) & 70% Isopropyl Alcohol (IPA).



Instructions for Use		
	DuraPrep Solution	ChloraPrep*
Application	<p>Paint a single, uniform application and do not go back over areas already prepped.</p> 	<p>Dry Site (such as abdomen or arm) Use repeated back-and-forth strokes of the sponge for approximately 30 seconds. Completely wet the treatment area with antiseptic.</p>  <p>Moist Site (such as the inguinal fold) Use repeated back-and-forth strokes of the sponge for approximately 2 minutes. Completely wet the treatment area with antiseptic.</p>

Fig. 5

\* Per ChloraPrep label

## Some surgical prep applicators cover a lot more ground than others.

With a 26 mL applicator of 3M™ DuraPrep™ Surgical Solution (Iodine Povacrylex [0.7% available iodine] and Isopropyl Alcohol, 74% w/w) Patient Preoperative Skin Preparation, you can cover more than twice the area of the 26 mL ChloroPrep® Patient Preoperative Skin Preparation 2% Chlorhexidine Gluconate (CHG) & 70% Isopropyl Alcohol (IPA).

According to labeling, a 26 mL applicator of ChloroPrep will cover an area 13.2 inches by 13.2 inches, or 174 square inches. In comparison, a 26 mL applicator of DuraPrep solution (8630) will cover 15 inches by 30 inches, or 450 square inches (Fig.6). This is more than twice the area, with a single applicator. For procedures that call for large coverage with a prep, this can be the difference between using one and using several applicators. A difference that, ultimately, can add to the cost of a procedure (Fig.7).

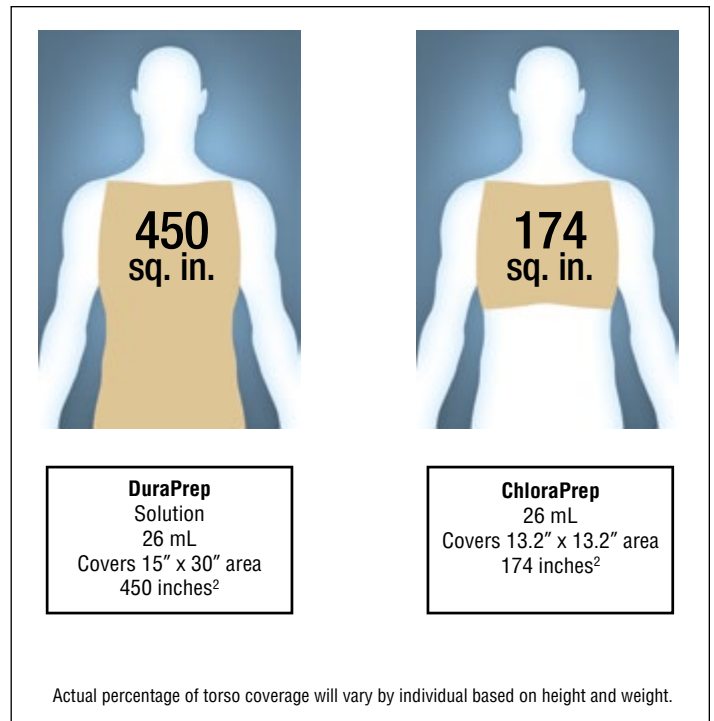


Fig. 6

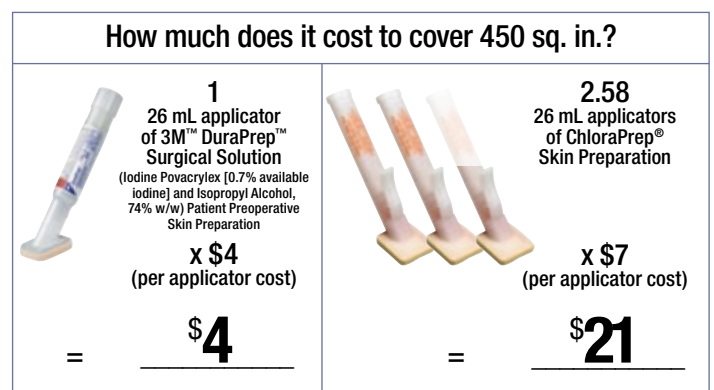


Fig. 7

## CDC Guidelines: There's not just one.

**Contrary to what some would have you believe, there are different CDC guidelines that address skin antisepsis.**

CDC guidelines can help drive best practice. But even when two guidelines address a shared segment, they are not interchangeable. For example, both the CRBSI and SSI guidelines address patient skin prep. But the rationale and recommendation in each are not the same. Bottomline: make sure you are using the appropriate CDC guideline before you make decisions on product use.

### **CDC Guideline for the Prevention of Intravascular Catheter-Related Bloodstream Infection (CRBSI)**

Focus: management of catheters in place for long-term monitoring or delivery of therapeutics.

Source: Guideline for the Prevention of Intravascular Catheter-Related Bloodstream Infection, Centers for Disease Control and Prevention, Morbidity and Mortality Weekly Report. August 9, 2002; vol. 51.

### **CDC Guideline for the Prevention of Surgical Site Infection (SSI)**

Focus: multi-disciplinary category approach to reducing the risk of surgical site infection.

Source: Guideline for the Prevention of Surgical Site Infection, Centers for Disease Control and Prevention, Infection Control and Hospital Epidemiology. 1999; vol.20; 247-278.



## Before you standardize on a patient prep, remember this: CDC, AORN and NQF don't.

**CDC** (Centers for Disease Control and Prevention, "Guideline for Prevention of Surgical Site Infections," *Infection Control and Hospital Epidemiology*, Vol. 20, No 4, April 1999)

*"Use an appropriate antiseptic agent for skin preparation."*

**NQF** (National Quality Forum, Safe Practice #22 on Surgical Site Infections (SSIs). NQF 2010)

*"Preoperatively use solutions that contain isopropyl alcohol as skin antiseptic preparation until other alternatives have been proven as safe and effective, and allow appropriate drying time per product guidelines."*

**AORN** (Perioperative Standards and Recommended Practice, Patient Skin Antisepsis. AORN, 2009)

*"Preoperative skin antiseptic agents that have been FDA-approved or -cleared and approved by the health care organization's infection control personnel should be used for all preoperative skin preparation."*

## Iodine Povacrylex does not contain one drop of Povidone Iodine.

In a recent study of skin preps, published by the *New England Journal of Medicine*<sup>1</sup>, it was pointed out that povidone-iodine-based preps didn't perform as well as CHG-based preps. What wasn't pointed out is that DuraPrep solution was not included in this study, and its active ingredient is not povidone-iodine. **So any conclusions drawn about povidone-iodine cannot be attributed to 3M™ DuraPrep™ Surgical Solution (Iodine Povacrylex [0.7% available iodine] and Isopropyl Alcohol, 74% w/w) Patient Preoperative Skin Preparation.** Compare the differences between the two in the chart below.



Description	Iodine Povacrylex	Povidone-Iodine Scrub and Paint
Effective in a single, painted coat <sup>2</sup>	Yes	No
Resists removal by irrigation <sup>3</sup>	Yes	No
Persistent - At least 48 hours* against resident bacteria after a blood and saline (fluid) challenge <sup>4</sup> - At least 12 hours against transient bacteria <sup>5</sup>	Yes	No Unknown Unknown
Immobilizes bacteria remaining on the skin after prepping <sup>6</sup>	Yes	No
Promotes drape adhesion <sup>3,7,8</sup>	Yes	No

Fig. 8

\* Following ASTM E1173

1. Darouiche RO, Wall MJ Jr, Itani KM, Otterson MF, Webb AL, Carrick MM et al. Chlorhexidine-alcohol versus povidone-iodine for surgical site antisepsis. *N Engl J Med* 2010; 362: 18-26.
2. Data on file (05-010214, LIMS 8304, LIMS 8918, LIMS 8058).
3. Roberts, A. *Skin Preparations in CABG Surgery: A Prospective Randomized Trial: Complications in Surgery* Nov-Dec 1995 pp. 740-747.
4. Data on file (05-010565).
5. Data on file (SRFE 1513).
6. Data on file (05-004891).
7. Jacobson CS, Osmond, Hanssen A., et al: *Prevention of Wound Contamination Using DuraPrep Solution Plus Ioban 2 Drapes.* *Clinical Orthopaedics* No. 439. Oct 2005 pp. 32-37.
8. Data on file (LIMS 9567, 05-010210, 05-010262, 05-010212).

## Unfortunately, when drape edges lift, microbes get a boost.

In clinical studies, 3M™ DuraPrep™ Surgical Solution (Iodine Povacrylex [0.7% available iodine] and Isopropyl Alcohol, 74% w/w) Patient Preoperative Skin Preparation provided significantly greater drape adhesion than ChloroPrep® Patient Preoperative Skin Preparation 2% Chlorhexidine Gluconate (CHG) & 70% Isopropyl Alcohol (IPA) and other water-soluble preps, when tested with 3M™ Ioban™ 2 Antimicrobial Incise Film.

Incise drapes are used to create a sterile surface in procedures where the consequence of infection can have serious morbidity or mortality, such as cardiothoracic, joint replacement and other implant surgeries, neurosurgery, and trauma. But when a drape lifts at the wound edge, the exposed skin allows for the potential of bacteria being transferred into the wound. In one study, drape lift was associated with a 6-fold increase in surgical site infections.<sup>1</sup> Therefore, it is important to consider the effect of different preps on drape adhesion. In clinical studies, DuraPrep solution provided significantly greater drape adhesion than ChloroPrep<sup>2</sup> and other water-soluble preps (Fig. 9 and 10).

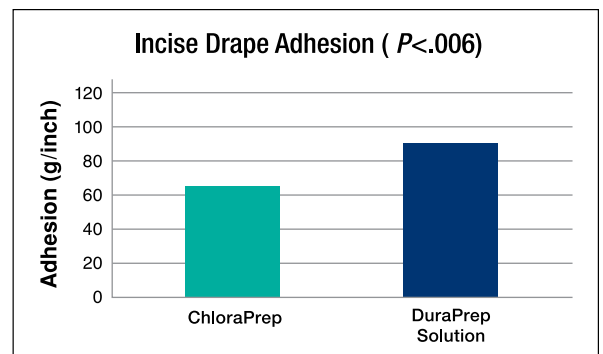


Fig. 9

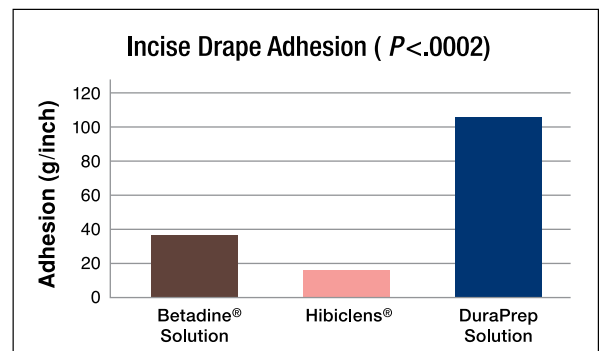


Fig. 10



Loss of Drape Adhesion



Better Drape Adhesion

1. Alexander, J.W., Aerni, S., and Plettner, J.P. 1985. Development of a Safe and Effective One-Minute Preoperative Skin Preparation. *Arch Surg.* 120: 1357-1361.

2. Data on file (Study-05-010262, Study-05-010210, LIMS 9567), 3M Health Care.

3. Data on file (Study-05-010515), 3M Health Care.



## When blood and saline enter the scene, a good surgical prep doesn't run away.

**3M™ DuraPrep™ Surgical Solution (Iodine Povacrylex [0.7% available iodine] and Isopropyl Alcohol, 74% w/w) Patient Preoperative Skin Preparation contains a polymer that dries to a water-insoluble film and resists wash-off by blood and saline challenges.**

Studies show that blood and saline irrigation can significantly reduce the microbial effectiveness of some surgical patient preps. In fact, a published study<sup>1</sup> showed that DuraPrep solution had greater log reduction than Chloraprep® Patient Preoperative Skin Preparation 2% Chlorhexidine Gluconate (CHG) & 70% Isopropyl Alcohol (IPA) when challenged by saline irrigation or soak – and that difference was statistically significant with the saline soak ( $P=.006$ ) (Fig. 11)<sup>1</sup>.

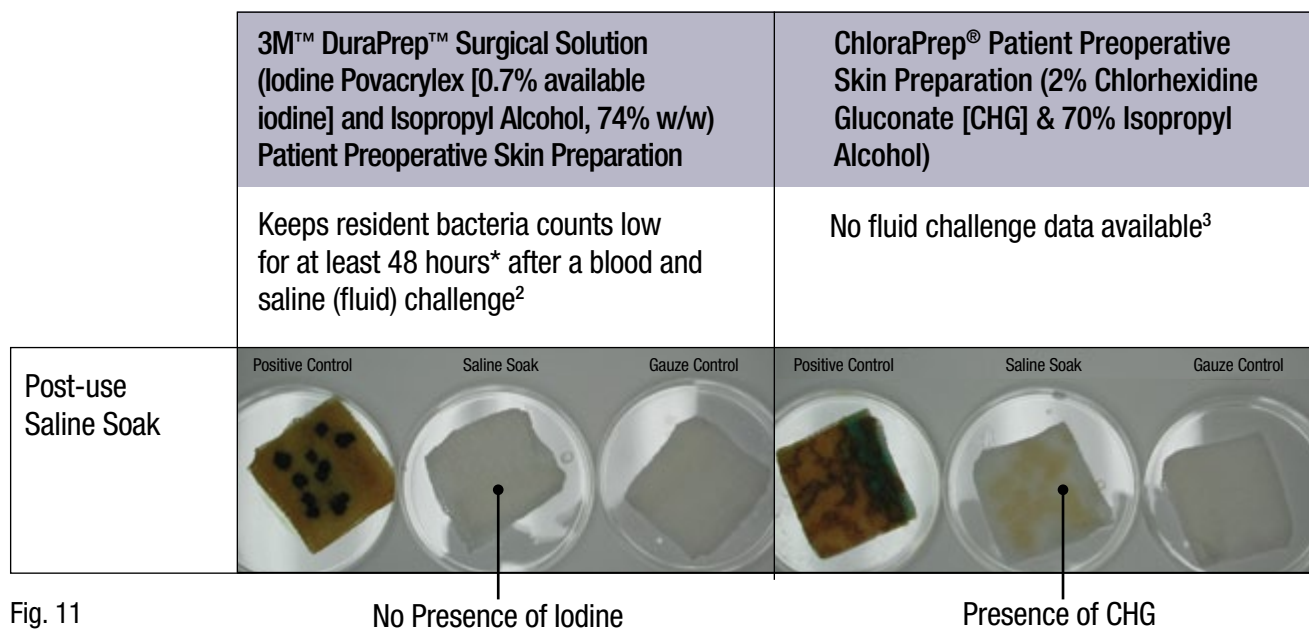


Fig. 11

\*Following ASTM E1173

1. *American Journal of Infection Control*, Volume 35, Issue 6, August 2007, 367-373.

2. Safety & Efficacy Data (<http://multimedia.3m.com/mws/mediawebserver?66666UuZjcFSLXTmXME48&cEVuQEcuZgVs6EVs6E666666>)  
Data on file 3M Health Care.

3. Website: <http://www.chloraprep.com>

When an operation is finished,  
a good surgical prep has only just begun.

**3M™ DuraPrep™ Surgical Solution (Iodine Povacrylex [0.7% available iodine] and Isopropyl Alcohol, 74% w/w) Patient Preoperative Skin Preparation shows persistent activity for at least 48 hours\* after simulated surgical conditions.**

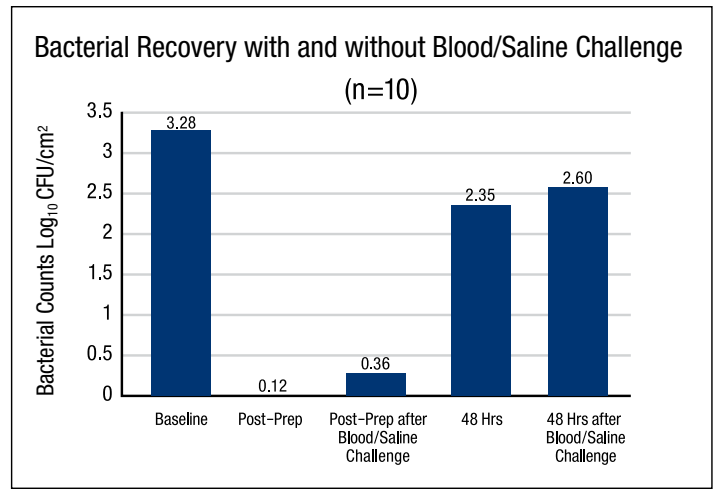


Fig. 12

3M™ DuraPrep™ Solution vs. ChloraPrep® Persistent Activity		
	3M™ DuraPrep™ Surgical Solution (Iodine Povacrylex [0.7% available iodine] and Isopropyl Alcohol, 74% w/w) Patient Preoperative Skin Preparation	ChloraPrep® Patient Preoperative Skin Preparation (2% Chlorhexidine Gluconate [CHG] & 70% Isopropyl Alcohol)
Persistence	Keeps resident bacteria counts low for at least 48* hours <sup>1</sup>	Maintains antimicrobial activity for at least 48 hours <sup>2</sup>
	Water-insoluble film provides persistent activity, as demonstrated by kill of transient organisms for at least 12 hours	No transient bacteria data published

Fig. 13

\* Following ASTM E1173

1. Safety & Efficacy Data (<http://multimedia.3m.com/mws/mediawebserver?66666UuZjcFSLXTtmXME48&cEVuQEcuZgVs6EVs6E666666>)  
Data on file 3M Health Care.

2. Website: <http://www.chloraprep.com>



## Not all surgical preps match their quality with this quantity of documentation.

**3M™ DuraPrep™ Surgical Solution (Iodine Povacrylex [0.7% available iodine] and Isopropyl Alcohol, 74% w/w) Patient Preoperative Skin Preparation has substantial clinical documentation including data in simulated surgical conditions.**

This includes:

- 5 human safety studies
- 9 *in vitro* studies
- 8 *in vivo* studies
- 8 clinical in-use studies

Only five published clinical studies of common topical antiseptic products have a SSI primary outcome (Fig. 14).

Antiseptic Prep Related Publications	Author	Journal	Preps Studied	Primary Outcome	Other Interventions	Hospital
Chlorhexidine-Alcohol versus Povidone-Iodine for Surgical-Site Antisepsis	Darouiche et al	New England Journal of Medicine, Jan 2010	2% CHG/IPA** (ChloraPrep®) vs. PVP-I (aqueous povidone-iodine)	SSI	Unknown	X
Effects of Preoperative Skin Preparation on Postoperative Wound Infection Rates: A Prospective Study of 3 Skin Preparation Protocols	Swenson et al	Infection Control & Hospital Epidemiology, Oct 2009	Iodine Povacrylex/ IPA (DuraPrep solution) vs. PVP-I/ IPA (Betadine® solution) vs. 2% CHG/IPA (Chlora-Prep)	SSI	Unknown	X
Preoperative Skin Preparation of Cardiac Patients	Segal et al	Association of Operating Room Nurses Journal, Nov 2002	Iodine Povacrylex/ IPA (DuraPrep solution) vs. PVP-I (aqueous povidone-iodine)	SSI	YES incise drapes	X
Skin Preparations in CABG Surgery: A Prospective Randomized Trial	Roberts et al	Complications in Surgery, Nov/Dec 1995	Iodine Povacrylex/ IPA (DuraPrep solution) vs. PVP-I (aqueous povidone-iodine)	SSI	YES incise drapes	X
Cutting Surgical-site Infection Rates for Pacemakers and ICDs	Taylor	Nursing, Mar 2006	Only CHG with IPA	SSI	YES Timing of antibiotic prophylaxis, clipping instead of shaving	X

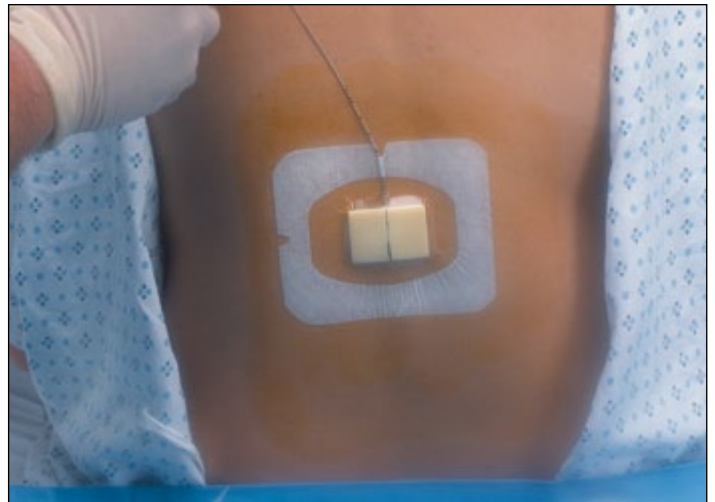
Fig. 14 \*\*Isopropyl Alcohol

## The right surgical prep won't create problems for the meninges.

**3M™ DuraPrep™ Surgical Solution (Iodine Povacrylex [0.7% available iodine] and Isopropyl Alcohol, 74% w/w) Patient Preoperative Skin Preparation is not contraindicated for lumbar puncture and epidural access and procedures where a patient prep might come in contact with the meninges. ChlorPrep® Patient Preoperative Skin Preparation 2% Chlorhexidine Gluconate (CHG) & 70% Isopropyl Alcohol (IPA), product labeling contraindicates use in these areas.**

Standardization of practice is a goal for healthcare facilities because it helps prevent error and assists in providing the same level of care for all patients. DuraPrep solution helps you standardize your practice: one solution for intact skin.\*

\* See DuraPrep solution drug facts at the end of this brochure.



### **3M™ Ioban™ 2 Antimicrobial Incise Drapes**

---

Because skin cannot be sterilized, the use of an incise drape helps reduce the risk of wound contamination.

## Only a drape does what a drape does.

**Skin surface that has been prepped has only been disinfected, not sterilized. Patient Pre-operative preps are not enough. You need a drape.**

By definition, a skin surface covered by a sterile incise drape creates a sterile barrier at the beginning of surgery, whereas a skin surface that has been prepped has only been disinfected, not sterilized.

- Skin preps cannot completely eradicate bacteria
- Skin preps are vulnerable to removal or neutralization during surgery by blood, exudate and irrigation fluids
- Bacterial regeneration occurs continuously on the skin even after prepping

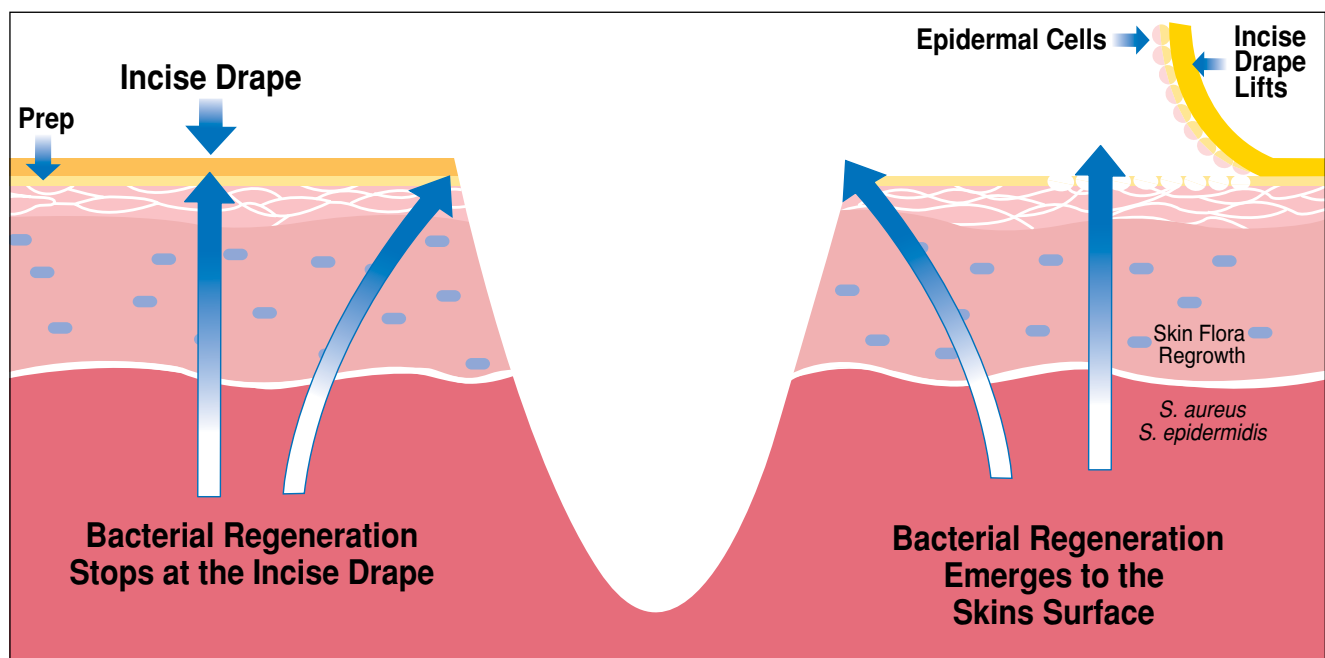


Fig. 15 – Incise Drape/Bacterial Regeneration Stops at the Incise Drape/Bacterial Regeneration Emerges to the Skin's Surface

# Drape lift has been associated with a six-fold increase in surgical site infection.<sup>1</sup>

A drape's barrier is only effective when the drape is securely adhered to the patient's skin all the way to the incision site.

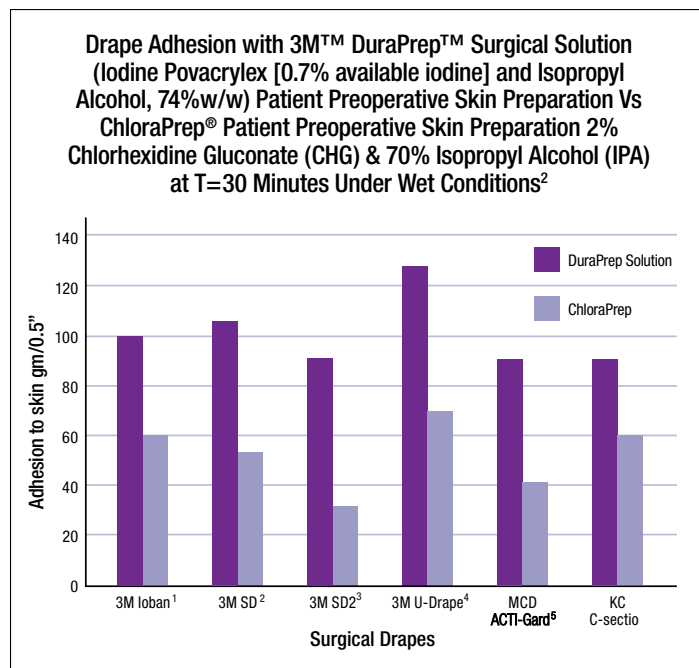


Fig. 16

1. 3M™ Ioban™ 2 Antimicrobial Incise Drape
2. 3M™ Steri-Drape™ Incise Drape
3. 3M™ Steri-Drape™ 2 Incise Drape
4. 3M™ Steri-Drape™ U-Drape
5. ACTI-Gard® Antimicrobial Incise Drape
6. Cesarean/Abdominal Fluid Collection with Fenestration drape

1. Alexander, J.W., Aerni, S., and Plettner, J.P. 1985. Development of a Safe and Effective One-Minute Preoperative Skin Preparation. *Arch Surg.* 120: 1357–1361  
 2. Data on file i2MS Study-05-010515 (2006), 3M Health Care

## What separates one incise drape from all the rest is where its antimicrobial agent lives.

**The antimicrobial in 3M™ loban™ 2 antimicrobial incise drapes is in the adhesive – so it's in constant contact with the skin.**

loban 2 antimicrobial incise drapes are made from a polymeric film coated with a pressure-sensitive adhesive. An iodophor complex is incorporated into the adhesive and provides antimicrobial properties (Fig. 17).

loban 2 antimicrobial incise drapes not only immobilize bacteria, their iodophor complex continues to come in contact with a patient's skin. In an *in vitro* study, loban has been demonstrated to be effective in reducing microorganisms.<sup>1</sup> Other clear incise drapes simply immobilize bacteria, but do not contain an antimicrobial agent.

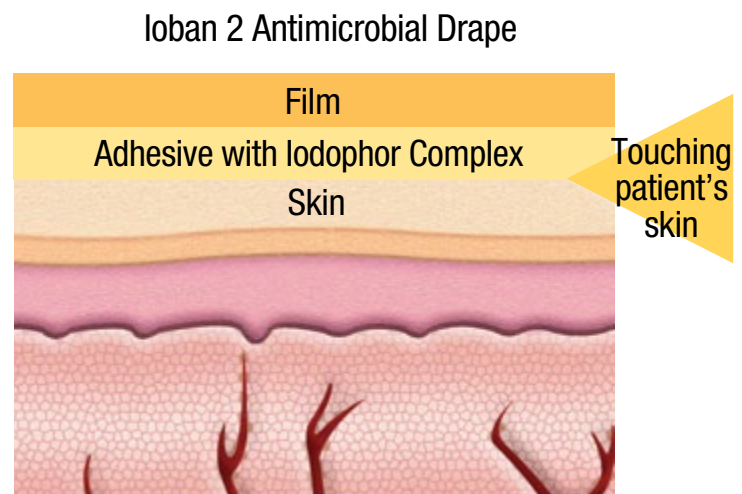


Fig. 17

1. Eyberg, C.E., MS, Morse, D.J., MS, Olson, L.K., BS, and Parks, P.J., MD, PhD. 2008. An *in vitro* Time-kill Study to Compare the Antimicrobial Activity of Three Antimicrobial Surgical Incise Drapes. 19th Annual Scientific Meeting of the Society for Healthcare Epidemiology of America (SHEA), March 19-22, 2009, San Diego, California.

## Not all antimicrobial incise drapes are created equal.

Test methods that directly apply the drape to the skin and measure skin flora are very difficult to correlate with real suppression at the skin surface. But a time-kill study clearly reveals the difference between drapes.

The objective of this study was to measure the antimicrobial activity of three different antimicrobial incise drapes, using an in vitro time-kill method.

A 3M™ Steri-Drape™ Incise Drape, with no antimicrobial, was used as a control.

### Conclusions:

- 3M™ Ioban™ 2 Antimicrobial Incise Drapes were significantly better at reducing the microbial counts when compared with ISO Drape® Incise Drape featuring Microban® Antimicrobial Protection and MCD ACTI-Gard® for all microorganisms tested at 90 minutes.
- ACTI-Gard drape was not significantly better than Steri-Drape 2 in reducing any of the microorganism tested at all time points tested.
- Microban drape was not significantly better than Steri-Drape 2 in reducing any of the microorganism tested at all time points tested.

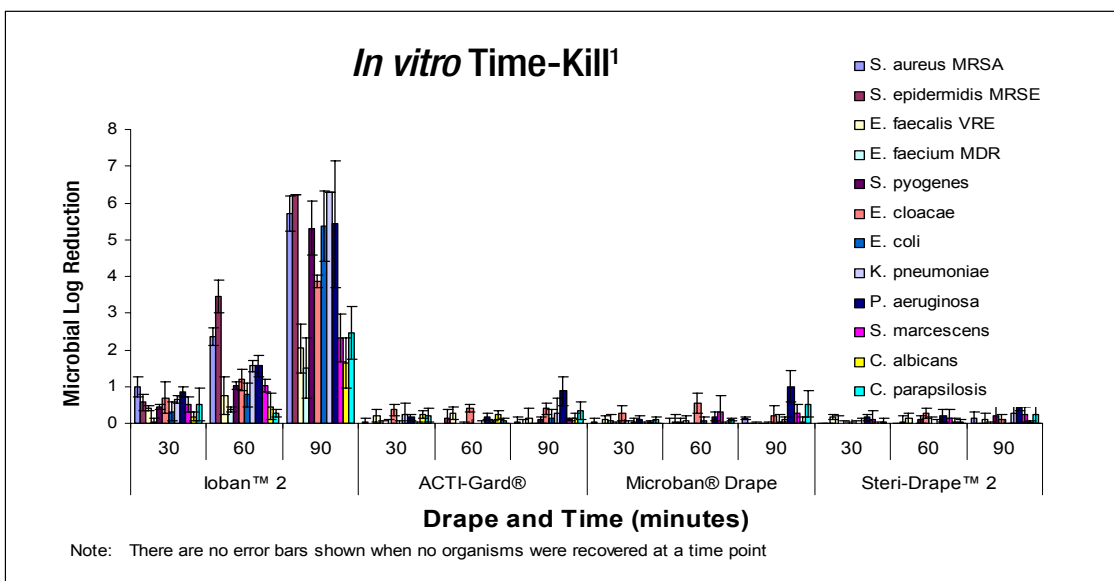


Fig. 18

1. Eyberg, C.E., MS, Morse, D.J., MS, Olson, L.K., BS, and Parks, P.J., MD, PhD. 2008. An in vitro Time-kill Study to Compare the Antimicrobial Activity of Three Antimicrobial Surgical Incise Drapes. 19th Annual Scientific Meeting of the Society for Healthcare Epidemiology of America (SHEA), March 19-22, 2009, San Diego, California.

# 3M™ DuraPrep™ Surgical Solution Drug Facts

## Active ingredients

Iodine povacrylex (0.7% available iodine) . . . . . Antiseptic  
Isopropyl alcohol, 74% w/w . . . . . Antiseptic

## Purpose

## Uses


### patient preoperative skin preparation:

- for preparation of the skin prior to surgery
- helps reduce bacteria that potentially can cause skin infection

## Warnings

**For external use only. Flammable, keep away from fire or flame.**

### To reduce the risk of fire, PREP CAREFULLY:

- do not use 26 mL applicator for head and neck surgery
- do not use on an area smaller than 8 in. x 10 in.  
Use a small applicator instead.
- solution contains alcohol and gives off **flammable vapors** 
- do not drape or use ignition source (e.g., cautery, laser) until solution is completely dry (minimum of 3 minutes on hairless skin; up to 1 hour in hair).
- avoid getting solution into hairy areas. **Wet hair is flammable.** Hair may take up to 1 hour to dry.
- do not allow solution to pool
- remove solution-stained material from prep area

## Do not use

- on patients with known allergies to iodine or any other ingredients in this product
- on open wounds, on mucous membranes, or as a general skin cleanser
- on infants less than 2 months old due to risk of excessive skin irritation and transient hypothyroidism

## When using this product

- keep out of eyes, ears, and mouth. May cause serious injury if permitted to enter and remain. If contact occurs, flush with cold water right away and contact a doctor.
- to avoid skin injury, care should be taken when removing drapes, tapes, etc. applied over film.
- use with caution in women who are breast-feeding due to the potential for transient hypothyroidism in the nursing newborn

**Stop use and ask a doctor** if irritation, sensitization or allergic reactions occur. These may be signs of a serious condition. On rare occasions, use of this product has been associated with skin blistering.

**Keep out of reach of children.** If swallowed, get medical help or contact a Poison Control Center right away.

## Directions (follow all directions for use)

- at the end of the prep, discard any portion of the solution which is not required to cover the prep area. It is not necessary to use the entire amount available.

## Getting Patient Ready for Solution:

- use in well-ventilated area
- do not microwave or heat the solution applicator
- apply to clean, completely dry, residue-free, intact skin
- when hair removal is necessary, use a surgical clipper on the morning of the surgery. If a wet shave is used, thoroughly remove all soap residues.

## Activating the Applicator:

For 8635 (6 mL) applicator:

- grasp product by wrapping hand and fingers around the labeled portion of the applicator. Place thumb on the lever.
- with sponge parallel to floor, snap lever. Allow all fluid to flow into sponge.

For 8630 (26 mL) applicator:

- with sponge parallel to the floor, press the cap end of the applicator. Solution will begin to flow into the sponge.
- wait for fluid level to reach indicator line of applicator barrel.

## When Applying Solution:

- **DO NOT SCRUB.** Paint a single, uniform application and do not reprep area.
- **do not allow solution to pool.** Use sponge applicator to absorb excess solution and continue to apply a uniform coating. If solution accidentally gets outside of prep area, remove excess with gauze.
- when using the 8630 (26 mL) applicator, clean umbilicus with enclosed swabs when applicable. (Moisten swabs by pressing against solution-soaked sponge applicator.)
- tuck prep towels as needed under both sides of the neck to absorb excess solution. Remove towels before draping.
- avoid getting solution into hairy areas. **Wet hair is flammable.** Hair may take up to 1 hour to dry. 
- when prepping skin folds, toes, or fingers, use a sterile-gloved hand to hold skin apart until completely dry. Otherwise, skin may adhere to itself.


## After Applying Solution:

- to reduce the risk of fire, **wait until solution is completely dry (minimum of 3 minutes on hairless skin; up to 1 hour in hair).** Solution will turn from a shiny to a dull appearance on skin alerting the user that the solution is completely dry and no longer flammable.

## While Waiting for Solution to Completely Dry:

- do not drape or use ignition source (e.g., cautery, laser)
- check for pooled solution. Use sterile gauze to soak up pooled solution. Do not blot because it may remove solution from skin.
- remove solution-stained materials. Replace if necessary.

## After Solution is Completely Dry:

- to reduce the risk of fire, begin draping and/or using cautery only after solution is completely dry and all solution-stained materials are removed.
- if incise drapes are used, apply directly to dry prep. On completion of surgical procedure, removal of incise drape will remove film. 
- apply dressing following standard practices

**Other Information** store between 20–25°C (68–77°F) • avoid excessive heat above 40°C (104°F) • solution is not water soluble and may stain. Therefore, avoid contact with reusable items (basins, instruments).

**Inactive Ingredients** ethyl alcohol, water

**Questions?** call 1-800-228-3957 (Monday to Friday, 7AM – 6PM, CST). [www.3M.com](http://www.3M.com).

**Effective as of February 2010.**



## Infection Prevention Division 3M Health Care

3M Center, Building 275-4E-01  
St. Paul, MN 55144-1000

U.S.A.  
1-800-228-3957

[www.3M.com/infectionprevention](http://www.3M.com/infectionprevention)

Ioban, Steri-Drape, DuraPrep and  
3M are trademarks of 3M.

Please recycle.  
© 3M 2011. All rights reserved.  
70-2010-7381-7 (311.25) DPI

ACTI-Gard is a registered trademark of Medical Concepts Developments.  
ChloraPrep is a registered trademark of CareFusion, Inc.  
Previal-FX is a registered trademark of Cardinal Health.  
Betadine is a registered trademark of Purdue Pharma.  
Hibiclens is a registered trademark of Molnlycke RM Ltd.  
Microban is a registered trademark of International, Ltd.