



The Efficacy You Need.
The Skin Health You Want.



PURELL® Waterless Surgical Scrub

Surgical Scrubs Are A Critical Part Of Patient Safety

While significantly reducing resident microorganisms and eliminating transient microorganisms from the hands of surgical team members, surgical scrubs slow microbial repopulation, which helps to reduce their potential transfer into a surgical wound.

The U.S. Food and Drug Administration (FDA) Tentative Final Monograph (TFM) for Health Care Antiseptic Drug Products requires surgical scrubs to provide both immediate kill and a persistent effect. To achieve the required persistent effect, some hand hygiene products rely on a combination of active ingredients that may irritate skin when used frequently.

There's A New Way To Scrub In

Innovation Made Simple

High alcohol content has been proven to kill both resident and transient bacteria immediately upon contact. PURELL® Waterless Surgical Scrub is a patented, alcohol-only formula that weakens even the hardest-to-kill germs on contact, penetrating the skin more completely than alcohol alone to reach more resident bacteria, creating an environment that helps inhibit germ regrowth.

Although alcohol evaporates rapidly from the skin, studies have shown that bacterial counts continue to decline for some time after alcohol exposure. This occurs because bacteria damaged sublethally will die over time. Due to this post-exposure effect, additional active ingredients are not necessary to meet guidelines and requirements established by the Centers for Disease Control and Prevention (CDC), the Association of periOperative Registered Nurses (AORN) and the FDA.

Exceeds FDA Regulatory Requirements for In Vivo Testing of Surgical Scrub

PURELL® Waterless Surgical Scrub was tested according to FDA requirements at a third party independent clinical testing laboratory. Subjects used the product a total of 11 times over a five-day period to measure the reduction of resident hand microflora. The product met the FDA minimum performance requirements for surgical hand scrub antiseptics which are a 1-log (90%) reduction immediately after the first wash on day one, a 2-log (99%) reduction immediately after the first wash on day two, and a 3-log (99.9%) reduction immediately after the first wash on day five.¹ Furthermore, the bacteria count did not exceed baseline within six hours (under glove occlusion) on day one.



1st Scrub of the Day

PURELL® Waterless Surgical Scrub is approved for use as a first scrub of the day. The Food and Drug Administration (FDA) and the Association of periOperative Nurses (AORN) do not distinguish between the first scrub and subsequent scrubs.^{1,2} If hands are visibly soiled, wash hands with soap and water, drying completely before applying the surgical scrub. In addition, maintaining proper nail length and using a disposable nail cleaner prior to first use of PURELL® Waterless Surgical Scrub is required.

1. US Food and Drug Administration. Tentative final monograph for healthcare antiseptic drug products; proposed rule. Fed Regist. 1994;59(116):31445-31448. <https://www.govinfo.gov/content/pkg/FR-1994-06-17/html/94-14503.htm>. Accessed April 1, 2019.

2. Wood A & Conner R. Guidelines for Hand Hygiene. In: AORN Guidelines for perioperative practice. Denver, CO: 2016; 1.HHYG1-1.HHYG22.

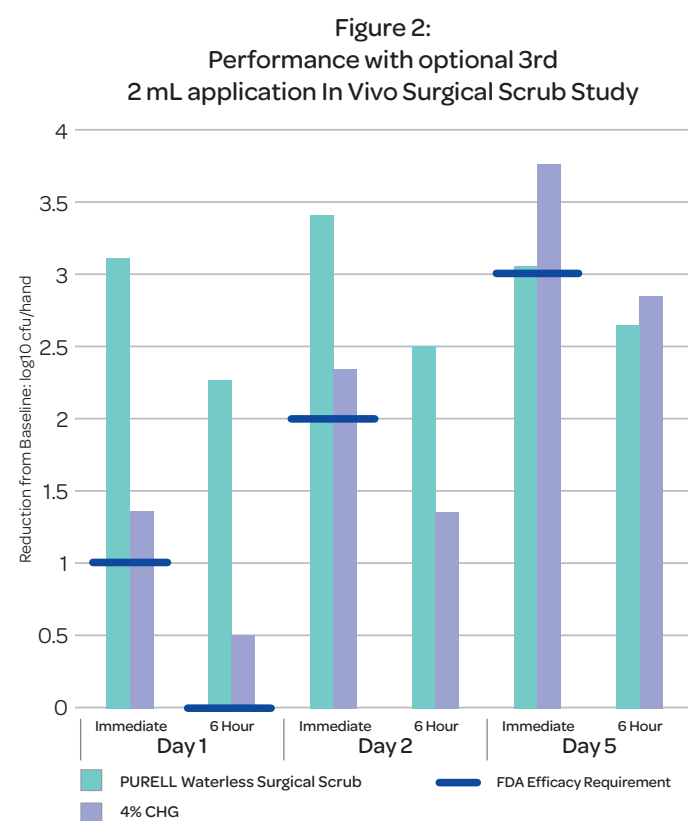
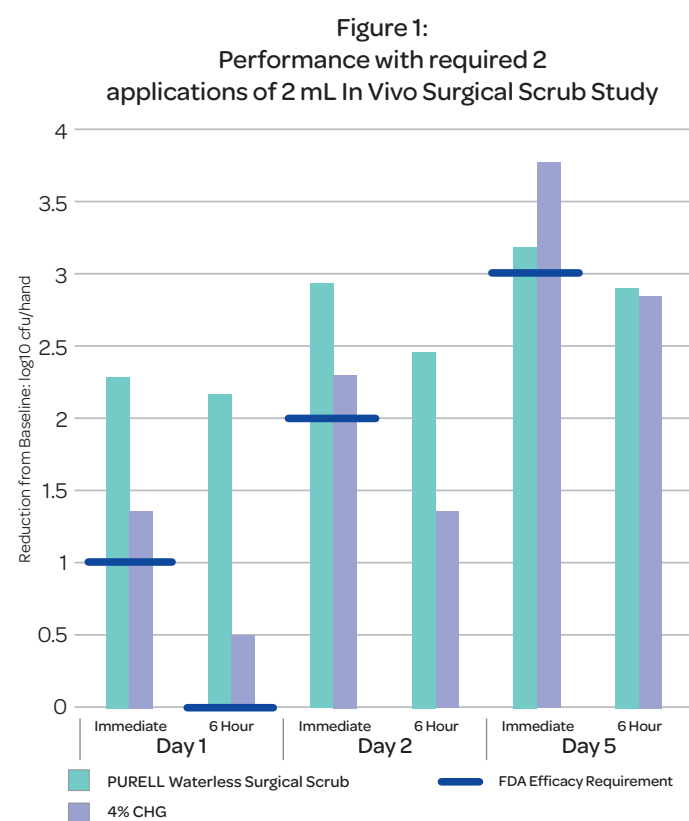


Meets Association For periOperative Nurses (AORN) Guidelines

Per AORN guidelines, “the multidisciplinary team should select products for hand hygiene and surgical hand antisepsis that meet US Food and Drug Administration requirements.” PURELL® Waterless Surgical Scrub is fully compliant with FDA regulations.

Meets and Exceeds FDA Regulatory Requirements¹

for Immediate and Persistent Antimicrobial Activity



PURELL® Waterless Surgical Scrub vs. 4% CHG Reference Product. Conducted at an independent third-party clinical laboratory, study #BSL#050716-102, March 23, 2006.

¹FDA Tentative Final Monograph (TFM) for Healthcare Antiseptic Drug Products.

Performance

PURELL® Waterless Surgical Scrub outperformed the 4% CHG referenced product both immediately and persistently with as little as 2 applications of 2 mL. With an optional third application, PURELL® Waterless Surgical Scrub met the day five requirement of a 3-log (99.9%) reduction in microbial hand flora in just one day.

Broad-Spectrum Antimicrobial Efficacy

PURELL® Waterless Surgical Scrub demonstrated very rapid and effective broad-spectrum reduction of gram-negative and gram-positive microorganisms. Standard plate counting techniques were used to enumerate viable challenge microorganisms. Fifteen-second time-kill evaluations were performed at an independent third-party laboratory against 50 bacterial strains. The challenge inoculum was introduced to the test product at time zero; a portion of the sample was removed and placed in neutralizing media at 15 seconds.

In Vitro 15 sec Time-Kill Studies

Challenge Microbe	ATCC No.	Exposure (Seconds)	Percent Reduction
Acinetobacter baumannii	19606	15	99.9999%
Bacillus megaterium (vegetative cells)	14581	15	99.9999%
Bacteroides fragilis	29762	15	99.9999%
Burkholderia cepacia	25416	15	99.9999%
Campylobacter jejuni	29428	15	99.9999%
Citrobacter freundii	8090	15	99.9999%
Clostridium difficile (vegetative cells)	9689	15	99.9994%
Clostridium perfringens (vegetative cells)	13124	15	99.9997%
Corynebacterium diphtheriae	11913	15	99.9996%
Enterobacter aerogenes	13048	15	99.9999%
Enterococcus faecalis (MDR, VRE)	51575	15	99.9999%
Enterococcus faecalis	29212	15	99.9999%
Enterococcus faecium (MDR, VRE)	51559	15	99.9999%
Escherichia coli	11229	15	99.9998%
Escherichia coli	25922	15	99.9998%
Escherichia coli (O157:H7)	43888	15	99.9998%
Haemophilus influenzae MDR	33930	15	99.9999%
Klebsiella pneumoniae			
Subsp.ozaenae	11296	15	99.9999%
Klebsiella pneumoniae			
Subsp.pneumoniae	13883	15	99.9999%
Lactobacillus plantarum	14917	15	99.9999%
Listeria monocytogenes	7644	15	99.9999%
Listeria monocytogenes	15313	15	99.9999%
Micrococcus luteus	7468	15	99.9999%
Proteus mirabilis	7002	15	99.9999%
Proteus vulgaris	13315	15	99.9999%
Pseudomonas aeruginosa	15442	15	99.9999%

Challenge Microbe	ATCC No.	Exposure (Seconds)	Percent Reduction
Pseudomonas aeruginosa	27853	15	99.9999%
Salmonella choleraesuis Serotype Choleraesuis	10708	15	99.9999%
Salmonella choleraesuis Serotype Enteritidis	13076	15	99.9999%
Salmonella choleraesuis Serotype Typhimurium	14028	15	99.9999%
Serratia marcescens	14756	15	99.9999%
Shigella dysenteriae	13313	15	99.9999%
Shigella sonnei	11060	15	99.9999%
Staphylococcus aureus	6538	15	99.9999%
Staphylococcus aureus	29213	15	99.9999%
Staphylococcus aureus (MRSA)	33591	15	99.9999%
Staphylococcus aureus (MRSA,PVL+)	120805Nr Sa384*	15	99.9999%
Staphylococcus epidermidis		15	99.9999%
Staphylococcus haemolyticus	43253	15	99.9999%
Staphylococcus hominis	27845	15	99.9999%
Staphylococcus saprophyticus	49453	15	99.9999%
Streptococcus pneumoniae	33400	15	99.9999%
Streptococcus pyogenes	19615	15	99.9999%

Yeasts and Fungi	ATCC No.	Exposure (Seconds)	Percent Reduction
Aspergillus flavus	9643	15	99.9540%
Aspergillus niger	9642	15	95.5385%
Candida albicans	14053	15	99.9999%
Candida tropicalis	13803	15	99.9999%
Epidermophyton floccosum	52066	15	99.9052%
Penicillium citrinum	9849	15	99.9054%
Trichophyton mentagrophytes	9533	15	99.9029%

*Clinical isolate
Abbreviations: MDR, Multiple drug resistant; VRE, Vancomycin resistant Enterococci; MRSA, Methicillin resistant Staphylococcus aureus; PVL, Panton-Valentine Leukocidin
Conducted at an independent third party clinical laboratory, study #BSL#051211-201, March 23, 2006.

The Best Waterless Surgical Scrub On The Market For Your Skin[‡]

It is essential for healthcare workers to maintain healthy skin on the job to reduce the probability of increased colonization and the spread of infectious agents. With most surgical staff members scrubbing in 10 to 15 times per day, it's easy to see why skin irritation is one of the most important issues they face. "Having hand dermatitis may result in hand colonization with pathogens, less hand washing, and increased risk for infection of both patients and perioperative team members."¹

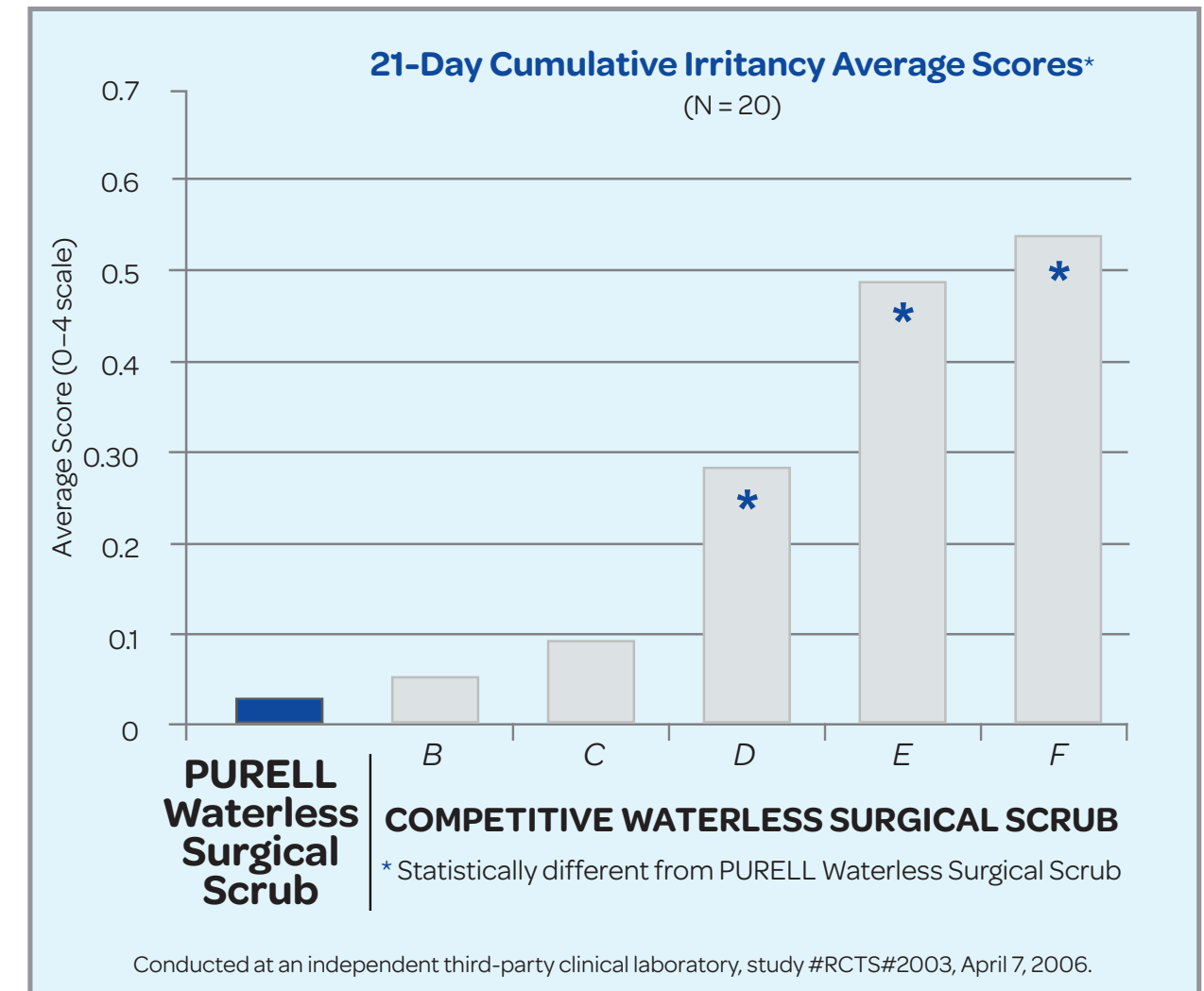


PURELL® Waterless Surgical Scrub has a low potential for skin irritation and allergic contact dermatitis while also being:

- Free of common skin allergens and irritants - harsh preservatives and fragrances
- The most mild waterless surgical scrub for your skin[‡]
- Formulated with a unique set of ingredients to moisturize the skin
- CHG-free and dye-free

21-Day Cumulative Irritancy Testing[‡]

A 21-day evaluation of skin irritation potential on humans was performed by applying PURELL® Waterless Surgical Scrub and competitive products daily, 5 days per week, for 21 days to the same site. The average obtained score for PURELL® Waterless Surgical Scrub was 0.02 on a scale of 0-4, with 0 indicating that no irritation occurred.



User acceptance: With a patented silky-smooth formulation, PURELL Waterless Surgical Scrub is free of dyes and fragrances. It also contains five skin-conditioning agents that leave hands feeling soft and moisturized without any stickiness or residual buildup. And since it evaporates quickly, it saves time and allows staff to quickly get into the OR.

¹ Wood A & Conner R. Guidelines for Hand Hygiene. In: AORN Guidelines for perioperative practice. Denver, CO: 2016; 1.HHYG1-1.HHYG22.

Compatible With Gloves And CHG

PURELL Waterless Surgical Scrub was tested on 100 control gloves and 100 gloves made of latex, polyisoprene and two brands of neoprene. The control samples were not exposed to PURELL® Waterless Surgical Scrub. Results indicated that PURELL Waterless Surgical Scrub does not impact the integrity of latex, neoprene or polyisoprene surgical gloves. An additional compatibility study to measure the effects of PURELL Waterless Surgical Scrub on the antimicrobial properties of a known CHG Surgical Scrub indicated that PURELL Waterless Surgical Scrub is compatible with CHG.¹ Following the ASTM D5151-99 standard, glove samples were immersed in PURELL Waterless Surgical Scrub for a period of two hours and then examined for leaks.

Meets Standards For Use In Sterile Compounding Pharmacies

The US Pharmacopeial Convention publishes standards for sterile compounding pharmacies. USP 797 General Chapter, Pharmaceutical Compounding – Sterile Preparations states, “once inside the buffer area or segregated compounding area, and prior to donning sterile powder-free gloves, antiseptic cleaning shall be performed using a waterless alcohol-based surgical hand scrub with persistent activity following manufacturers’ recommendations.”² PURELL® Waterless Surgical Scrub, with our proven persistent activity is a perfect fit for use in sterile compounding pharmacies.



PURELL® Waterless Surgical Scrub requires a two-step application that is outlined in the directions for use. The product is to be dispensed into the palm of one hand. The opposite hand's fingertips are dipped into the product and worked under the finger nails, onto the hand and up to the forearm. This is repeated for the opposite hand. The process can be adapted so that the product is applied up to the wrists in a pharmacy setting due to the presence of a gown, which prevents application up to the forearm.

1. Study conducted at an independent third-party clinical laboratory, study #Smithers #062-13141, February 14, 2006.

2. United States Pharmacopeia. The United States Pharmacopeia. 42nd rev. The National Formulary. 37th ed. The United States Pharmacopeia Convention; Rockville, Maryland: 2019. Pharmaceutical Compounding: Sterile Preparations (General information chapter 797).



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