

**Dial Complete®**  
**Foaming Antimicrobial Hand Soap**

**The Dial Corporation**

**Healthcare Division**



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= Unequaled Germ Kill**

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# I. Background

# The Problem

According to the Centers for Disease Control and Prevention, hospital-acquired infections are the #4 killer in the US. That's more than auto accidents and murders combined.

# Clean Hands = Better Health

## *America wants clean hands and healthy families*

- **Hand washing is the most effective way to help prevent the spread of germs.** (APIC, Centers for Disease Control and Prevention, US Dept. of Health & Human Services, AORN)
- ☀ **In addition to colds, some pretty serious diseases -- like hepatitis A, meningitis, and infectious diarrhea -- can easily be prevented if people make a habit of washing their hands.** (Centers for Disease Control and Prevention)
- ☀ **71% of consumers are buying antibacterial products to keep families healthy.** (Yankelovich Monitor 1/04)
- 🌐 **Antibacterial is the NUMBER ONE REASON for choosing a liquid hand soap.** (Arbor 5/04)



## Dial: 1 of America's Most Trusted Brands

*Dial is the leading brand with high user satisfaction!*

- Dial products have been in the American marketplace for over 100 years
- Dial is the #1 antibacterial soap brand (IRI FDM+WM 52 wks ending 3/22/09)
- Dial is recognized as the antibacterial leader 2X more than the next competitor (1H08 Millward Brown Brand Equity Tracking Study)
- The Dial Corporation has over 80% household penetration. (There is a Dial product in 8 out of 10 households in the US) (2007 Nielson HH Panel data)

# Dial: 1 of America's Most Trusted Brands



**Dial is the overwhelmingly preferred brand in public venues: 7x more than Ecolab and 9x more than GOJO\***

- **8 out of 10 users feel antibacterial protection is more important when using restrooms away from home**
- **Dial ranks as the #1 most known brand**
- **Nearly half report having a more favorable opinion of an establishment when they recognize a trusted soap brand**

\*Blinded web research study of public restroom users by Synovate (n = 1000), Dec 2006.

## II. Dial Complete's Key Benefits

- **Superior Germ Kill**
- Superior Mildness
- Cost Effectiveness
- Environmentally-Compatible



# Dial Complete's Proof of Effectiveness

How do we know that Dial Complete offers superior germ kill?

- **Time Kill Test**

Dial Complete vs. Competitive Handwashes

- **Healthcare Personnel Handwash Tests**

Dial Complete vs. Hibiclens Surgical Scrub

Dial Complete vs. Competitive Handwashes

- **Activated Triclosan Study**

Dial Complete vs. other soap types

# Dial Complete's Proof of Effectiveness

- **Time Kill Test**
- Healthcare Personnel Handwash Tests
- Activated Triclosan Study

# Time Kill Test Organisms

**Dial Complete<sup>®</sup> Antimicrobial Foaming Soap was tested against a broad range of organisms that have high relevancy in healthcare.**

**Examples of the types of Bacteria used in testing:**

Bacteria Tested	Description
Staphylococcus aureus (MRSA)	A major source of nosocomial (hospital-acquired) infections in patients with weakened immune systems. Can also cause food poisoning by releasing enterotoxins into food.
Enterococcus faecalis (VRE)	Normally found in feces. Resistant to the antibiotic Vancomycin, and like MRSA, attacks patients with weakened immune systems. Associated with food poisoning as well as blood, brain and heart infections.
Escherichia coli	Normally found in feces. Known to be responsible for diarrhea outbreaks. Standard organism used in germ-kill testing.
Pseudomonas aeruginosa	Another major source of nosocomial (hospital-acquired) infections in patients with weakened immune systems. A common cause of pneumonia. Infection sites include the lower respiratory tract, urinary tract, bloodstream, and surgical wounds.

# Time Kill Test Measurements



In order to fully understand this test, let's look at the standard method by which effectiveness at killing germs is measured.

Ex. Start with 1,000,000 germs on your hand\*

<b>Germ Reduction</b>	<b>Germs killed</b>	<b>Germs remaining on your hand</b>	<b>% of germs killed</b>
<b>0.5 log<sub>10</sub></b>	<b>683,772</b>	<b>316,278</b>	<b>46%</b>
<b>1 log<sub>10</sub></b>	<b>900,000</b>	<b>100,000</b>	<b>90%</b>
<b>2 log<sub>10</sub></b>	<b>990,000</b>	<b>10,000</b>	<b>99%</b>
<b>3 log<sub>10</sub></b>	<b>999,000</b>	<b>1,000</b>	<b>99.9%</b>
<b>4 log<sub>10</sub></b>	<b>999,900</b>	<b>100</b>	<b>99.99%</b>
<b>5 log<sub>10</sub></b>	<b>999,990</b>	<b>10</b>	<b>99.999%</b>
<b>6 log<sub>10</sub></b>	<b>1,000,000</b>	<b>0</b>	<b>100%</b>

\*Aly and Maibach (1988) showed subjects can have as many as 1,000,000 colony forming units recoverable from their hands. Note that germ reduction figures shown are based on theoretical calculations.

# Time Kill Test Results



## Time Kill Test on Relevant Organisms (Log<sub>10</sub> Reduction at 15 secs)

Organism	Dial Complete® Highest germ kill!	Steris® Kindest Kare® Foaming Antimicrobial Handwash	Ecolab® Bacti-Foam® Healthcare Personnel Handwash	GOJO® Luxury Foam Antibacterial Handwash
MRSA – Hospital-acquired	5.04	1.73	1.45	1.73
MRSA – Community-acquired	3.76	0.82	0.64	1.30
Enterococcus faecalis (VRE)	>6.15	No reduction	2.24	2.19
Escherichia coli	>5.61	>5.61	>5.61	No reduction
Pseudomonas aeruginosa	>5.32	>5.32	>5.32	0.66

Data on file. Time Kill Study used 75% soap concentration.

MRSA (Hospital-acquired) – Dial Complete reduced germs by 5.04 log<sub>10</sub> while Steris and GOJO reduced germs by 1.73 log<sub>10</sub>. This represents over an [2,000 fold difference](#) in the effectiveness of the soap in killing germs.

Enterococcus faecalis (VRE) – Dial Complete reduced germs by over 6.15 log<sub>10</sub> while GOJO reduced germs by 2.19 log<sub>10</sub>. This represents over a [9,000 fold difference](#) in the effectiveness of the soap in killing germs.

# Time Kill Test Results



Dial Complete demonstrated excellent broad spectrum antimicrobial activity against transient pathogenic organisms

Dial Complete Antimicrobial Foaming Soap	Time Kill Study % reduction		
	ATCC#	15 sec	30 sec
Acinetobacter baumannii	19606	>99.999	>99.999
Candida albicans	10231	93.77	99.76
Enterococcus faecalis (VRE)	51299	>99.999	>99.999
Escherichia coli	11229	>99.999	>99.999
Listeria monocytogenes	15313	>99.999	>99.999
Pseudomonas aeruginosa	9027	>99.999	>99.999
Serratia marcescens	14756	91.62	99.95
Staphylococcus aureus	6538	99.998	>99.999
Staphylococcus aureus (MRSA – Hospital-acquired)	33591	99.996	>99.999
Staphylococcus aureus (MRSA – Community-acquired)	33592	99.98	99.998
Streptococcus pneumoniae	6303	>99.90	>99.90
Streptococcus pyogenes	14289	>99.995	>99.995

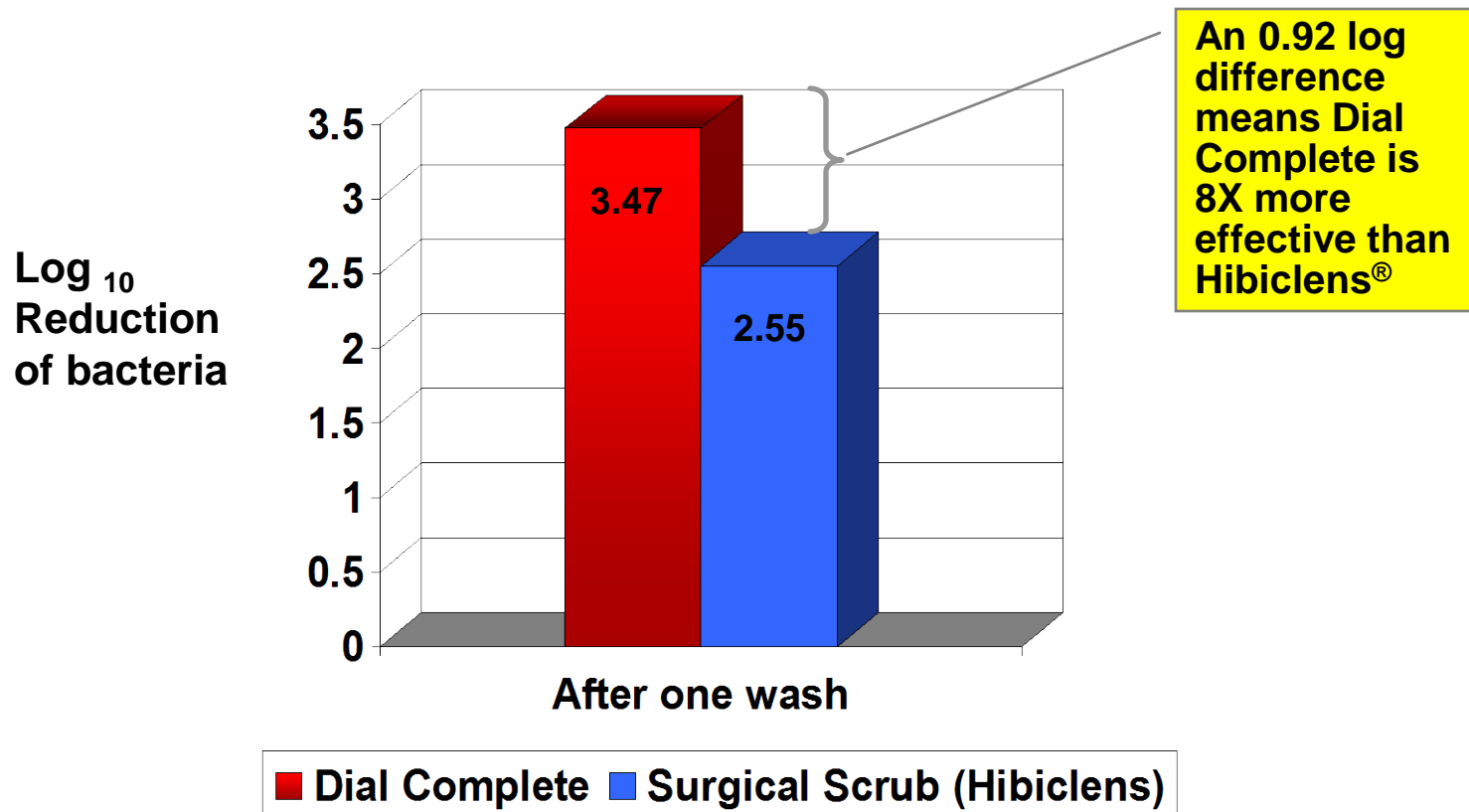
# Dial Complete's Proof of Effectiveness

- Time Kill Test
- **Healthcare Personnel Handwash Tests**
- Activated Triclosan Study

# HCPHW – Dial Complete vs. Hibiclens



In a standard Healthcare Personnel Handwash Test\*, Dial Complete was found to be **8x more effective at killing germs** than even the leading surgical scrub!



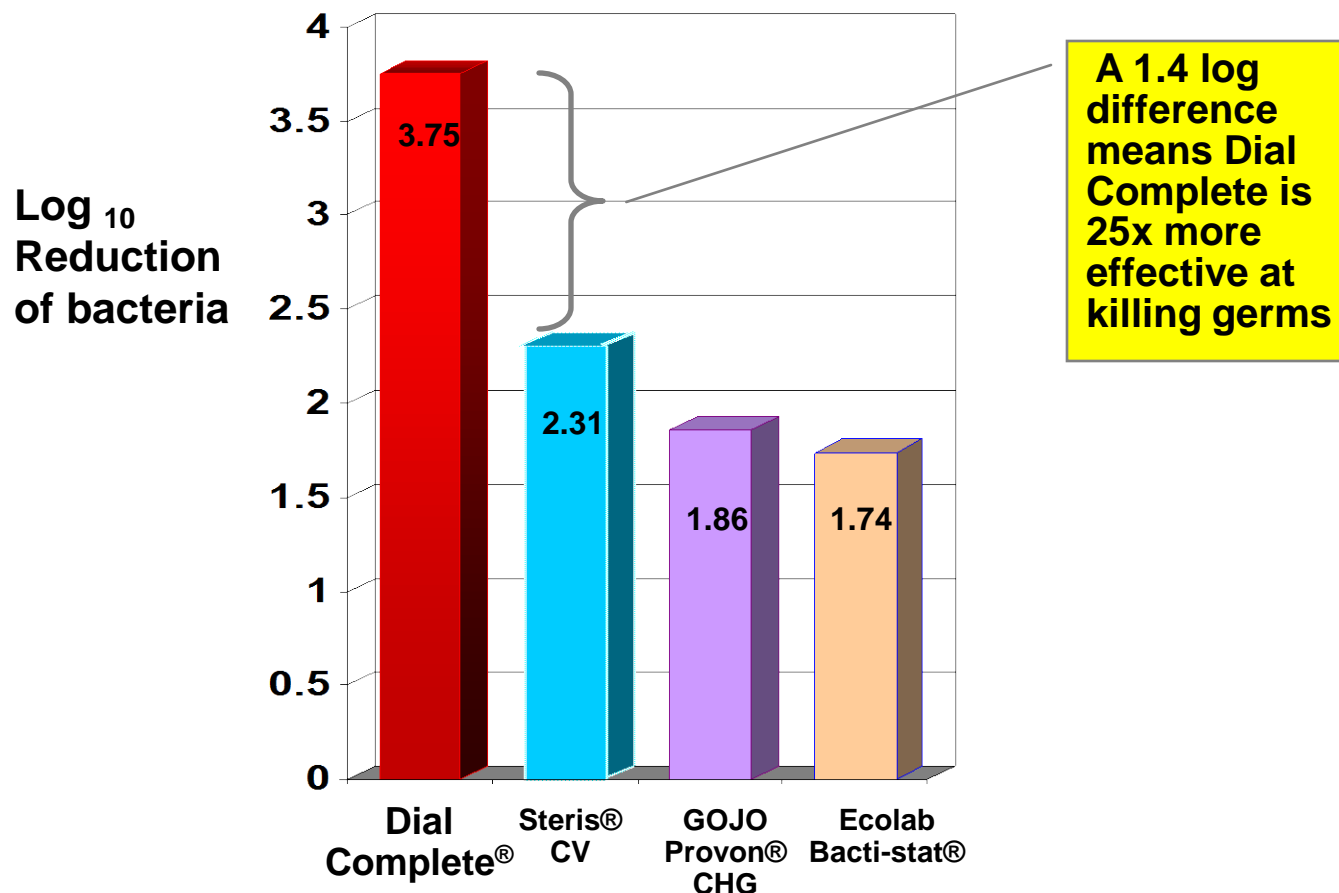
\*ASTM E1174-00 Healthcare Personnel Handwash test conducted at independent research laboratory with Serratia marcescens ATCC 14756



# HCPHW Test – Dial Complete vs. Others



In a standard Healthcare Personnel Handwash Test\*, Dial Complete was found to be 25x more effective at killing germs than the next closest antibacterial competitor!



\*ASTM E1174-00 Healthcare Personnel Handwash test conducted at independent research laboratory. Competitive data obtained from manufacturer literature.

# Dial Complete's Proof of Effectiveness

- Time Kill Test
- Healthcare Personnel Handwash Tests
- **Activated Triclosan Study**

# Activated Triclosan Study Overview



**Goal:** To determine how Dial Complete with *Activated Triclosan™ Technology* compares to a typical antibacterial and a non-antibacterial soap in reducing bacteria on the hands.

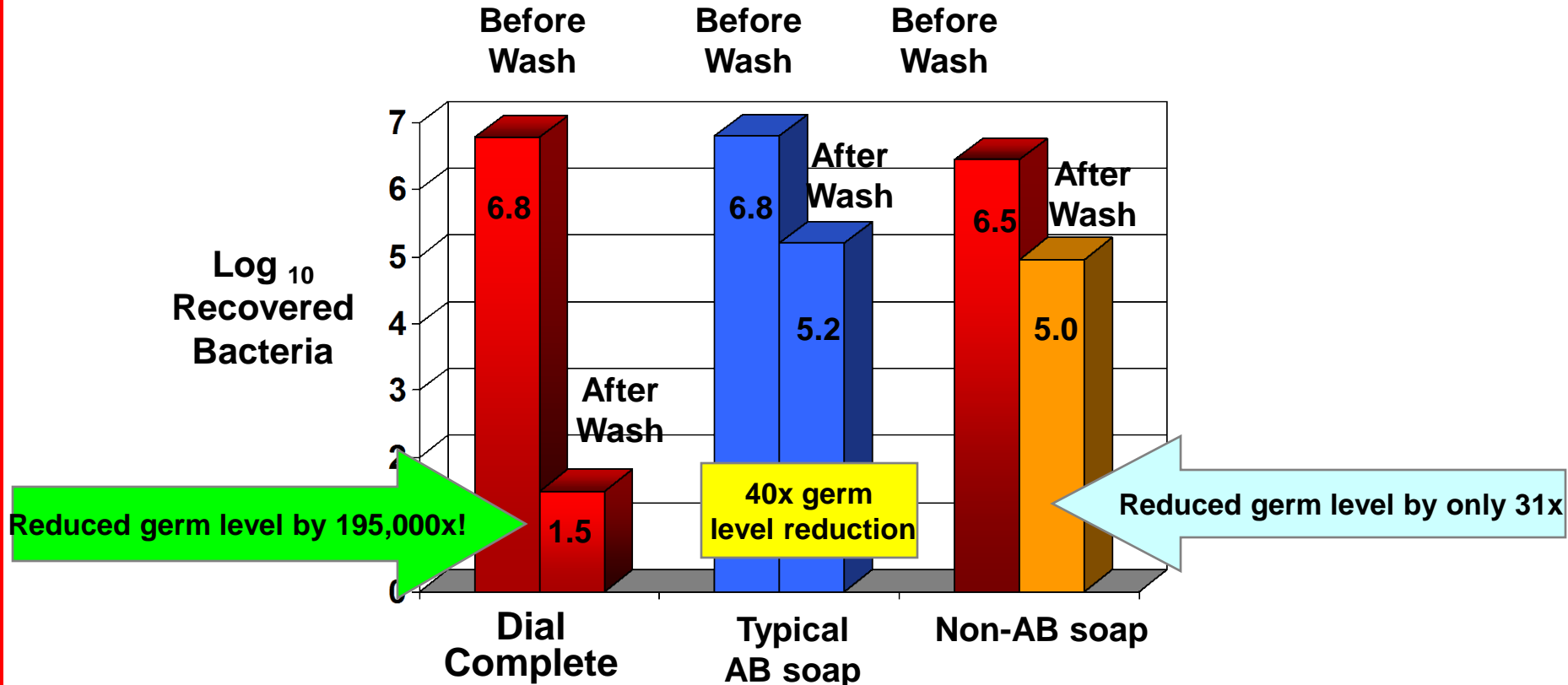
## **Methodology Summary:**

- 1.** A hand was contaminated with bacteria and the quantity of bacteria was determined.
- 2.** The hand was washed with either Dial Complete, a typical antibacterial soap, or a non-antibacterial soap.
- 3.** The remaining bacteria on the hand was counted.

# Activated Triclosan Study Results



Dial Complete was found to be significantly more effective than both a typical antibacterial and a non-antibacterial soap in reducing the level of bacteria on the hands



# A Visualization Dramatization

**Example: Start with  
a million germs on  
your hand**



# A Visualization Dramatization

**Washing with a non-antibacterial soap can reduce the level of germs by 31 times, leaving over 30 thousand germs...**



# A Visualization Dramatization

**Washing with a “typical” antibacterial soap can reduce the level of germs by 40 times, leaving over 25 thousand germs...**



# A Visualization Dramatization

**But washing with Dial Complete can reduce the level of germs by 195,000 times, leaving a dramatically cleaner hand!**





## II. Dial Complete's Key Benefits

- Superior Germ Kill
- **Superior Mildness**
- Cost Effectiveness
- Environmentally-Compatible

# Dial Complete's Proof of Mildness

How do we know that Dial Complete has superior mildness?

- **Dose Response Patch Test**

Dial Complete vs. Competitive Handwashes

- **In-Use Hospital Study**

Dial Complete vs. Steris BactoShield®

Dial Complete vs. Steris Soft 'N Sure®

- **In-Use Medical/Dental Office Study**

Dial Complete vs. Derma Scrub® Professional Crème Soap

# Dial Complete's Proof of Mildness

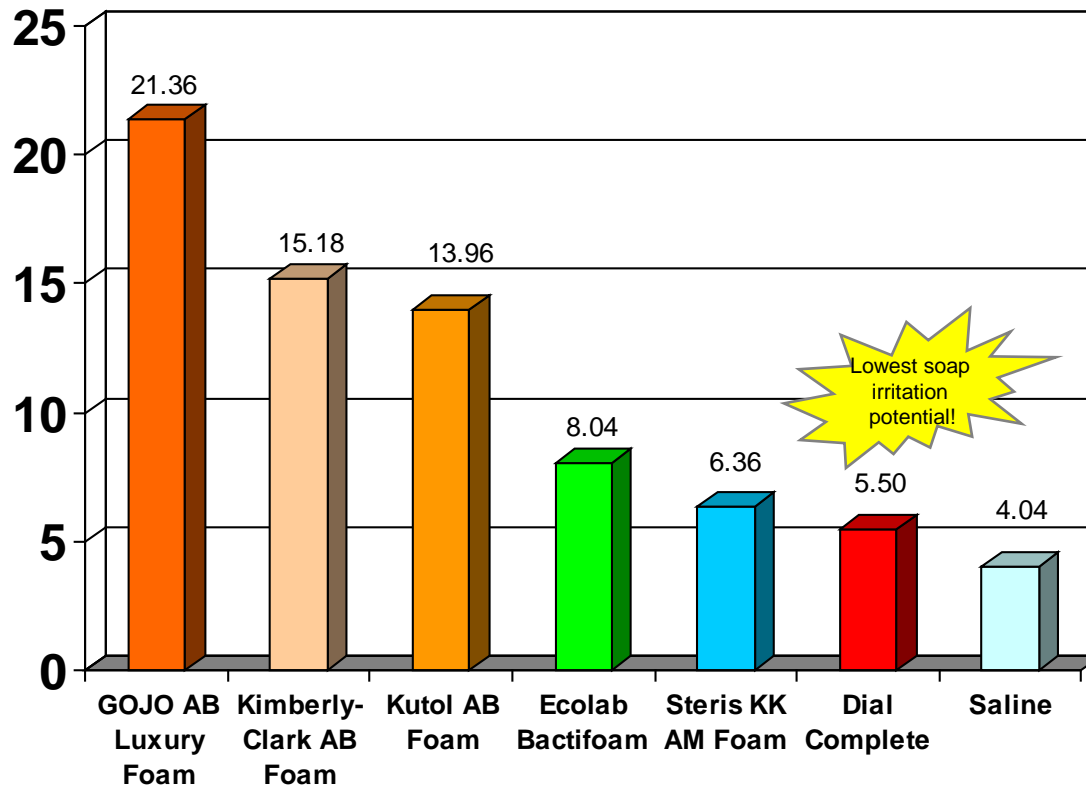
- **Dose Response Patch Test**
- In-Use Hospital Studies
- In-Use Medical/Dental Office Study

# Dose Response Patch Test Results



Dial Complete was found to have the LOWEST potential for skin irritation among healthcare hand soaps tested

- Dial Complete was the only soap shown to be statistically equivalent in its irritation score to saline



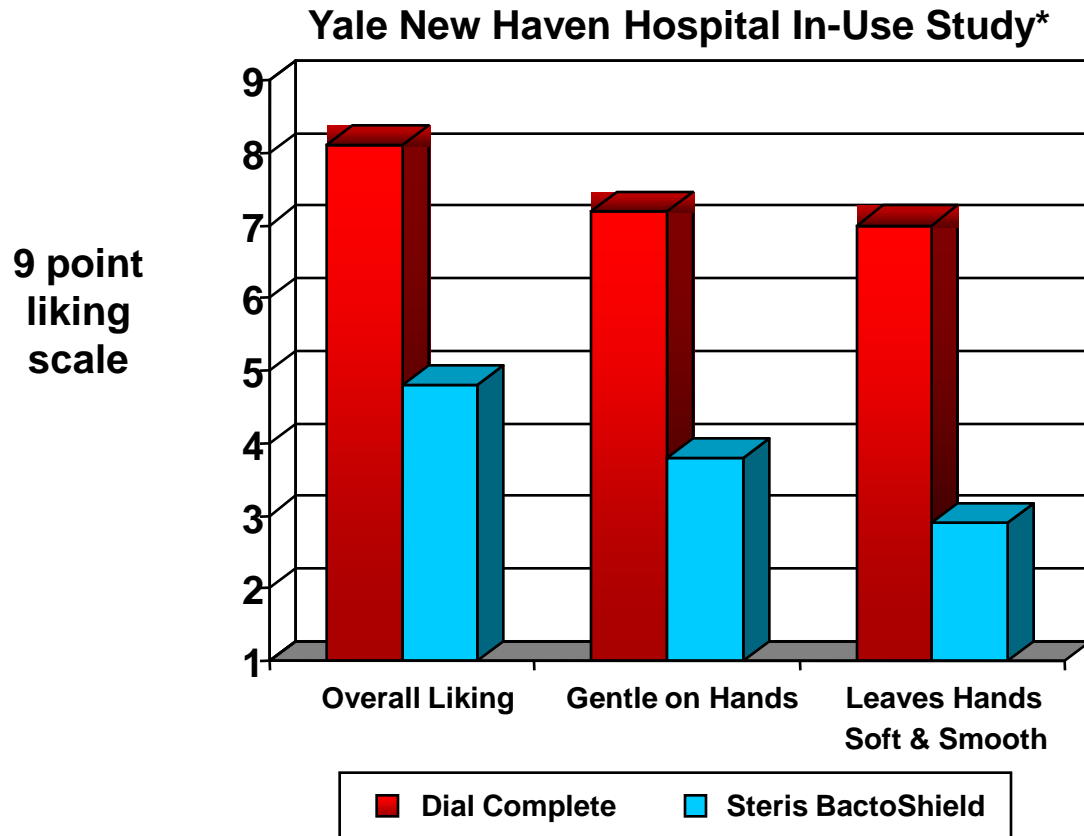
\*Study conducted at Dial [Clinical Research Laboratory](#), Study TM&R-0003-08-TXC Dose Response Patch Test, April 2008.

# Dial Complete's Proof of Mildness

- Dose Response Patch Test
- **In-Use Hospital Studies**
- In-Use Medical/Dental Office Study

# In-Use Hospital Study 1 Results

Dial Complete was significantly preferred over Steris BactoShield® in overall liking, gentleness to hands, and leaving hands feeling soft and smooth

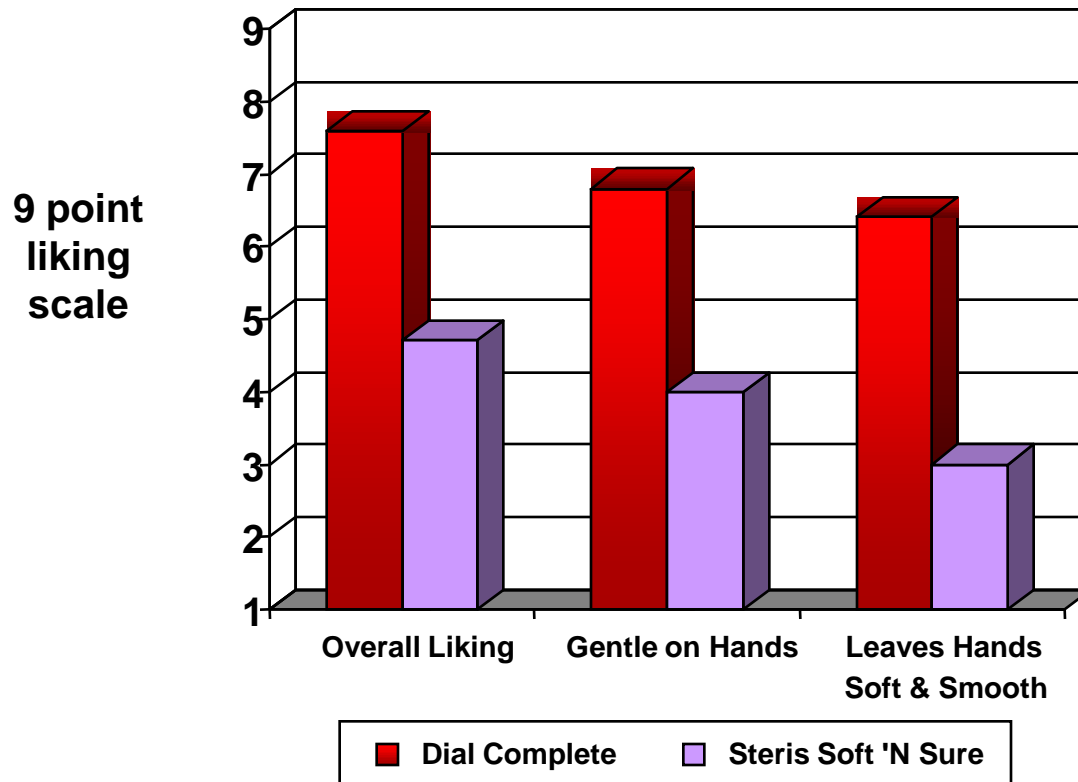


\*Study conducted by independent research firm, March 2002

# In-Use Hospital Study 2 Results

**Dial Complete was significantly preferred over Steris Soft 'N Sure® in overall liking, gentleness to hands, and leaving hands feeling soft and smooth**

Framingham MetroWest Medical Center In-Use Study\*



\*Study conducted by independent research firm, March 2002

# Dial Complete's Proof of Mildness

- Dose Response Patch Test
- In-Use Hospital Studies
- **In-Use Medical/Dental Office Study**



# In-Use Medical/Dental Office Study Results



**Dial Complete was significantly preferred over Derma Scrub® Professional Crème Soap for gentleness, how hands felt after washing, and clean rinsing**

## Preference Study in Healthcare Workers from Medical/Dental Offices

	<b>Dial Complete</b>	<b>Derma Scrub Lotion Soap</b>
<b>How gentle it was on hands</b>	√	
<b>Clean-rinsing</b>	√	
<b>How hands felt after washing</b>	√	

√ = significantly preferred

## II. Dial Complete's Key Benefits

- Superior Germ Kill
- Superior Mildness
- **Cost Effectiveness**
- Environmentally-Compatible

# Dial Complete's Proof of Cost Effectiveness

How do we know that Dial Complete is cost-effective?

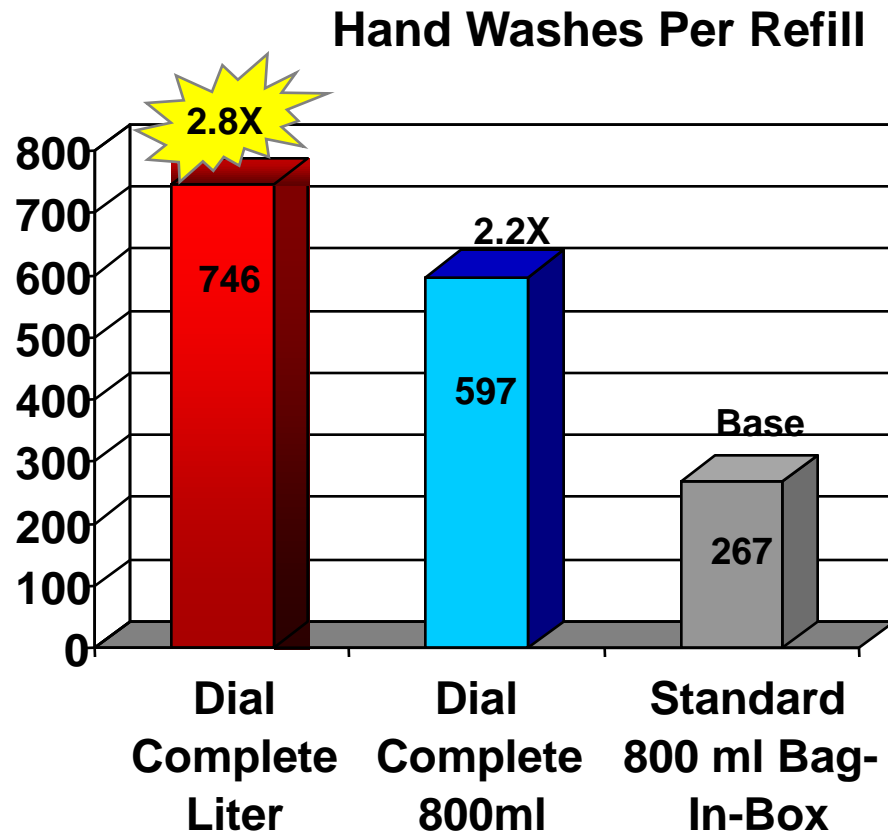
- **Hand Washes per Refill Comparison**  
Dial Complete vs. Traditional Bag-In-Box refills
- **Cost Per Use Comparison**  
Dial Complete vs. Traditional Bag-In-Box refill

# Dial Complete's Proof of Cost Effectiveness

- **Hand Washes per Refill Comparison**
- **Cost Per Use Comparison**

# Handwashes per Refill Comparison

Dial Complete offers **2.8x** the hand washes of traditional 800 ml bag-in-box refills!



# Dial Complete Proof of Cost Effectiveness

- Hand Washes per Refill Comparison
- **Cost Per Use Comparison**

# Cost Per Use Comparison



## Dial Complete Foam

## Traditional 800ml Bag-In-Box

mls per push	<b>0.67</b>	1.5
Pushes per handwash	<b>2</b>	2
Total mls per handwash	<b>1.34</b>	3.0
Case cost (200 column)	<b>\$39.85</b>	\$42.01
mls per case	<b>6,000 (6/1L)</b>	9,600(12/800ml)
Handwashes per case	<b>4,478</b>	3,200
<b>Cost per Handwash</b>	<b>0.89 cents</b>	1.31 cents
<b>% Savings</b>	<b>32%</b>	

## II. Dial Complete's Key Benefits

- Superior Germ Kill
- Superior Mildness
- Cost Effectiveness
- **Environmentally-Compatible**



# Dial Complete is Environmentally-Compatible



**Dial Complete meets the following criteria for environmental leadership throughout its life cycle:**

- **Effective cleaning**
- **Non-sensitizer, non-irritant**
- **Reduced packaging – no bag-in-box**
- **Recyclable packaging**
- **Post consumer recycled content**
- **No NTA, EDTA, APEOs, halogenated compounds or butoxy-ethanol**
- **No carcinogens**
- **OECD tested biodegradable**
- **Non-toxic to aquatic life**

## **III. Dial Instant Hand Sanitizer**

# Dial Hand Sanitizer Benefits

- Kills 99.999% of germs in as little as 15 seconds

Dial Hand Sanitizer rapidly kills disease-causing germs.

- Fragrance and dye-free formula

Fragrance can induce nausea in ill or sensitive people. Dyes can cause skin irritation in some individuals. Dial's unique formula makes it suitable even for sensitive individuals.

- Thick gel

Stays on your hands instead of running off onto the rug, floor, or your clothes where it can cause discoloration.

- Contains moisturizers and skin conditioners

Essential for maintaining a healthy skin barrier with repeated washing and sanitizing.

- Contains 62% ethyl alcohol

Higher alcohol concentrations have not been shown to be more effective at killing germs, but rather can cause increased irritation to the hands.



## IV. The Winning Equation:

**Dial Complete**

+

**Dial Instant Hand Sanitizer**

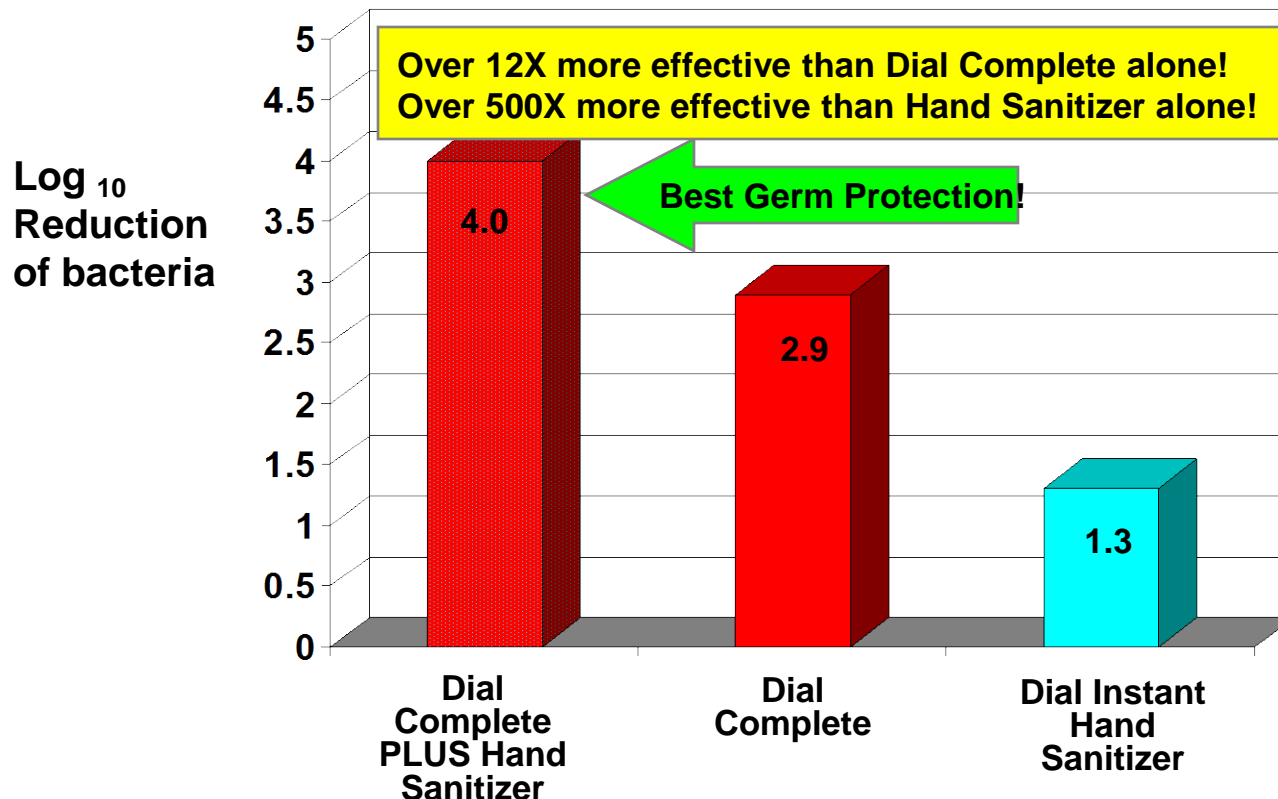
**= Unequaled Germ Kill**



# Dial Complete and Hand Sanitizer Together

Combining Dial Complete with Dial Instant Hand Sanitizer provides the highest level of germ protection for your hands

In Vivo 15 Second Hand Washes With 2 ml of Product\*



\*Manufacturer study using in vivo 15 second handwashes, S. marcescens marker organism, 2 ml applied of each product

## V. Lurosoothe Lotion

# Lurosoothe Hand & Body Lotion

- With Vitamin E and Natural Aloe, Cucumber, and Chamomile Extracts to soothe and refresh your skin
- Hydrating formula helps lock in moisture
- Absorbs quickly, non-greasy
- Hypoallergenic with no added dyes or fragrance
- Latex and non-latex compatible



## VI. Summary



# Summary

## I. Dial Complete's Key Benefits

- Superior germ kill
- Superior mildness
- Cost effectiveness
- Environmentally-compatible

## II. Dial Instant Hand Sanitizer

- Fragrance and dye free
- Thick gel helps to keep in on your hands
- Contains moisturizers and skin conditioners

## III. The Equation:

**Dial Complete + Instant Hand Sanitizer = Unequaled Germ Kill**  
*500x times more effective germ-kill than hand sanitizer alone!*

## IV. Complete Hand Care Program

**Dial Complete Soap, Dial Hand Sanitizer, Lurosoothe Lotion**