

# PURELL® Advanced Hygienic Hand Rub

An unprecedented combination of exceptional antimicrobial efficacy and clinically proven maintenance of skin health.



**A BREAKTHROUGH FORMULATION  
FOR ENTIRE HOSPITAL USE.**



A global leader in hand hygiene solutions that maintain skin health, GOJO Industries was founded on innovation and remains totally committed to engineering products and systems that embrace the latest advances in the science of skin hygiene and skincare. Products and systems pioneered by GOJO have helped to drive significant reductions in infection rates in hospitals, and have made a difference to patient outcomes<sup>(1,2)</sup>. This has been achieved by offering healthcare workers products and systems they actually want to use, especially in settings which demand high frequency usage.



# a total

(1) Fendler E.J. et al. (2002). The impact of alcohol hand sanitizer use on infection rates in an extended care facility. American Journal of Infection Control. 30(4) 226-33.  
(2) Hillburn, J. et al. (2003). Use of alcohol sanitizer as an infection control strategy in an acute care facility. American Journal of Infection Control. 31(2) 109-16.



## **PURELL® Advanced Hygienic Hand Rub effectively spearheads a total hand hygiene solution that promotes improved infection control by improving compliance**

- A breakthrough 'entire hospital' formulation with exceptional antimicrobial efficacy.
- An hygienic hand rub that feels great to use and is clinically proven to maintain skin health<sup>(3)</sup>.
- Superior dispensing systems intelligently designed to facilitate optimum usage.
- Superior support programmes; education and training to promote compliance building behaviour.

(3) Clinical Field Study # 2011-01-F10233, Conducted at Summa Akron City Hospital, February-March 2011  
21-Day Cumulative Irritation Assay, Study #2866, Sept 2011, RCTS, Irving, TX

# solution

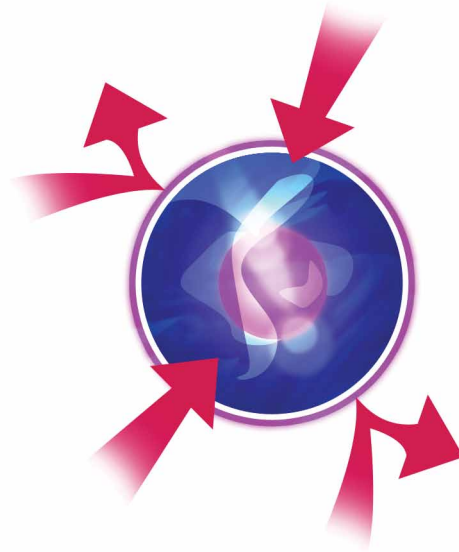
## A more intelligent way to kill germs.

PURELL® Advanced Hygienic Hand Rub represents a comprehensive re-think about how an hygienic hand rub can best promote infection control. It has been innovatively designed as an 'entire hospital' formulation to optimise the effectiveness of ethanol at just 70%. It incorporates patent-pending technology that sensitises microbial cells to alcohol, so maximising alcohol's antimicrobial effectiveness. In this way it achieves a level of efficacy far greater than some products with higher levels of alcohol.

PURELL Advanced Hygienic Hand Rub works differently from other hygienic hand rubs.



PURELL Advanced Hygienic Hand Rub with patent-pending technology sensitises microbial cells to alcohol.



Other hygienic hand rubs rely on high alcohol levels to attack robust cell walls.

# breakthrough

## PURELL® Advanced Hygienic Hand Rub outperforms products with higher levels of alcohol.

The belief that hygienic hand rubs with higher levels of alcohol are always more effective is wrong. Alcohol can be shown to meet a point of diminishing returns. This is demonstrated graphically in figure 1, below. Alcohol is often perceived to be drying to the skin. So there is a benefit in capping alcohol levels if exceptional efficacy can be delivered by the total formulation. Figure 2 shows that PURELL Advanced Hygienic Hand Rub offers superior efficacy to World Health Organisation (WHO) formulations containing higher alcohol levels.

Alcohol concentrations in ABHR\* products are well above the bactericidal threshold concentration:

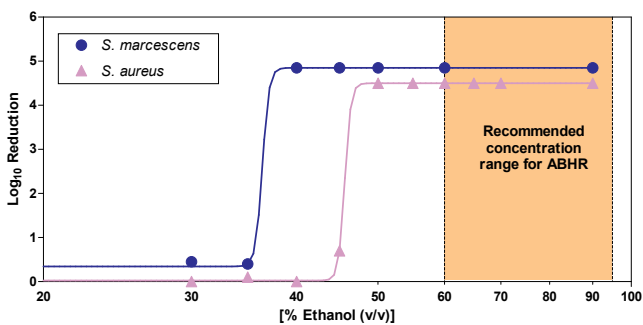


Figure 1

Concentration dependence of the bactericidal activity of ethyl alcohol. Various concentrations of ethyl alcohol (v/v) were evaluated by 15-second time kill experiments according to ASTM E2315-08 against *S. marcescens* (ATCC 14756) and *S. aureus* (ATCC 6538). Data was visualised using GraphPad Prism and curves were fit using a sigmoidal dose-response (variable slope).

GOJO Internal Study, Unpublished.

PURELL Advanced Hygienic Hand Rub outperforms other ABHR\* with higher levels of alcohol.

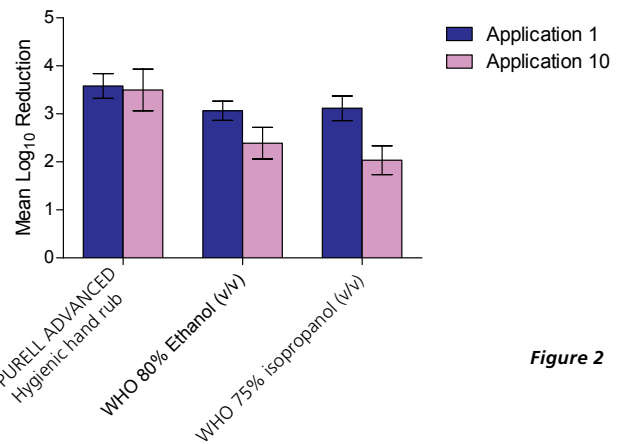


Figure 2

Healthcare Personnel Hand Rub Study #100907-101, January 6, 2011, BioScience Laboratories, Bozeman, MT

\*Alcohol Based Hand Rub

# formulation

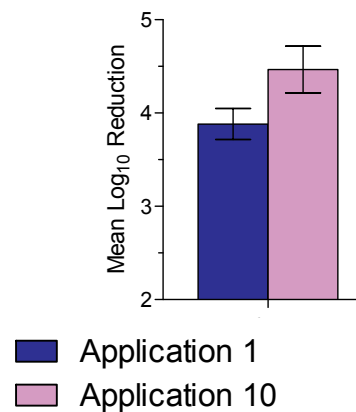
## This breakthrough formula meets the Hygienic Hand Rub Norm (EN 1500)<sup>(1)</sup> and actually works better the more you use it.

PURELL® Advanced Hygienic Hand Rub kills 99.99% of bacteria on hands, not just in the laboratory. When tested according to EN 1500<sup>(1)</sup> for hygienic hand disinfection, PURELL Advanced Hygienic Hand Rub is effective when 3 ml is applied for 30 seconds. Furthermore, efficacy has been demonstrated to improve with repeated use when tested on the hands according to (ASTM E1174)<sup>(2)</sup>. So, the more often it is used, the more protection it offers Healthcare Workers and their patients. This is a considerable advantage in high frequency environments where exposure to bacterial threat is significant.

### Healthcare Personnel Hand Rub (HCPHR) – ASTM E1174

Developed by the American Society for Testing and Materials (ASTM), this test is the required standard of the efficacy established by the FDA\*. It is used to determine the effectiveness of antimicrobial hand rub agents designed for frequent use at reducing life transient bacterial flora on hands. The FDA requires that antimicrobial hand rub agents achieve a 2-log<sub>10</sub> reduction at Application 1 and a 3-log<sub>10</sub> reduction at Application 10.

#### PURELL Advanced Hygienic Hand Rub 3 ml according to ASTM E1174



#### Log Reduction

A mathematical term, "Log Reduction," is used to show the relative number of live microbes eliminated by disinfecting or cleaning. For example, a "5-log reduction" means the number of micro-organisms has been lowered by 100,000 fold. If a sample holds 100,000 pathogenic microbes, a 5-log reduction would reduce the number of micro-organisms to one.

Healthcare Personnel Hand Rub Study #100635-101, September 24, 2010, BioScience Laboratories, Bozeman, MT.

(1). EN 1500, Study GOJO 2010-09-06-SN 10806, Sept 2010, HygCen Schwerin, Germany  
EN 1500, Study GOJO 2011-09-13, Sept 2011, Hyglab-UKP Weimar, Germany

(2). ASTM E1174 Study #100635-101, September 2010, BioScience Laboratories, Bozeman, MT

\* FDA: US Food and Drug Administration

## PURELL® Advanced Hygienic Hand Rub meets the Surgical Hand Disinfection Norm (EN 12791)<sup>(2)</sup> with sustained effect over 3 hours.



After 2 minutes application, PURELL Advanced Hygienic Hand Rub meets the Surgical Hand Disinfection norm with the important advantage of sustained effect over 3 hours, during which new growth of organisms on the hands is effectively suppressed.

This makes PURELL Advanced Hygienic Hand Rub the reliable choice for hand hygiene in every part of the hospital, from visitor areas to wards to the surgical suite.



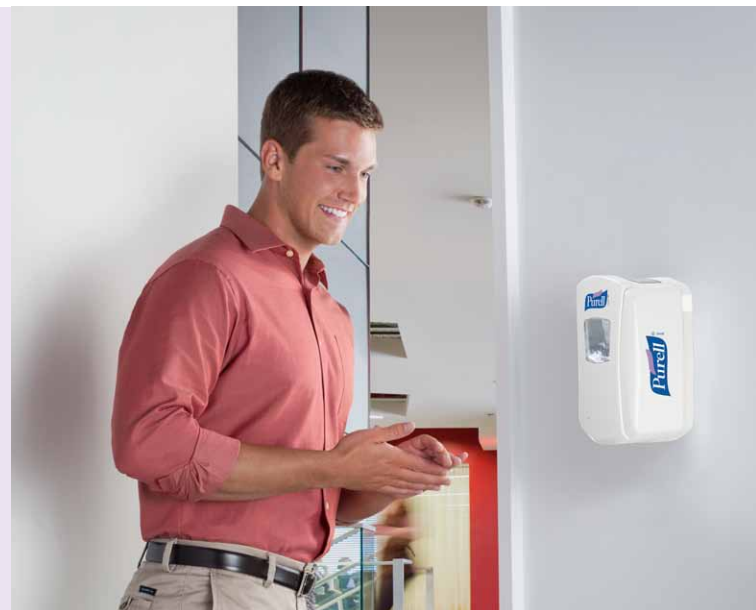
Formulation	Application	Mean Log <sub>10</sub> Reduction ± Standard Deviation	
		Immediate Effect	3 h Effect
Test Product	3 ml as needed for 120 seconds	2.05 ± 0.94	2.45 ± 0.93 <sup>(a)</sup>
“Reference: 1-propanol 60% (v/v) ”	3 ml as needed for 180 seconds	2.09 ± 0.77	2.00 ± 0.95

(a) Significantly better than reference P≤0.01

(2) EN 12791, Study GOJO 2012-02-09, Feb 2012, HygCen Schwerin, Germany

## PURELL® Advanced Hygienic Hand Rub meets the Virucidal Norm (EN 14476)<sup>(1)</sup> and can help to control viral outbreaks.

PURELL Advanced Hygienic Hand Rub is particularly valuable in helping to control viral outbreaks that are on the increase in many hospitals. These outbreaks can spread rapidly and cause distress from symptoms such as vomiting and gastro intestinal upset. As an effective virucidal formulation, it offers important security for both Healthcare Workers and their patients during such outbreaks.



(1) EN 14476 Poliovirus, Study #512-191, Jan 2012, MICROBIOTEST, Sterling, VA  
EN 14476 Adenovirus, Study #512-190, Jan 2012, MICROBIOTEST, Sterling, VA  
EN 14476 Murine Norovirus, Study G10ML1107-1M, Sept 2010, Mikrolab GmbH, Bremen, Germany



## Better science to create better products with exceptional efficacy.

GOJO has partnered with acute healthcare facilities over many years to fully understand the barriers to compliance and the needs of Healthcare Workers. We know that product efficacy is only part of the solution in improving patient outcomes. The high frequency with which many Healthcare Workers have to use hygienic hand rubs means that unless they can do so without damaging their hands, compliance will suffer too. PURELL Advanced Hygienic Hand Rub has been formulated with these practicalities in mind. Whilst its breadth of efficacy has been scientifically proven, the gentleness of the formulation means it is a product Healthcare Workers want to use. This is what 'effective compliance' really means.

PURELL Advanced Hygienic Hand Rub meets or exceeds all relevant hand hygiene norms so offering exceptional efficacy.

### Bactericide

EN 1040

EN 13727

EN 1276

EN 14348

### Yeasticide or Fungicide

EN 1275

EN 13624

EN 1650\*

### Hygienic Hand Rub

EN 1500

### Virucide

EN 14476

### Surgical Hand Disinfection

EN 12791

As an 'entire hospital' formulation suitable for every department, PURELL Advanced Hygienic Hand Rub offers real benefits, such as:

- Simplified management
- Security of supply
- Gentle to the skin

\*Yeasticidal according to EN 1650 C.Albicans

spectrum

## Why is skin health so important? Because of its proven link to compliance.

The important barriers to maximising compliance have been identified by research and some are listed below. One of the most important of these is the threat of skin damage:

- Skin irritation caused by hand hygiene agents<sup>(1,3)</sup>
- Inaccessible hand hygiene supplies<sup>(1,3)</sup>
- Ineffective placement of dispensers<sup>(2)</sup>
- Lack of knowledge of hand hygiene guidelines<sup>(2,3)</sup>
- Ineffective or insufficient education/training<sup>(2)</sup>
- Time limitations

(1) Larson, E. Girard, R. et al (2006). Skin reactions related to hand hygiene and selection of hand hygiene products. *American Journal of Infection Control*. 34(10) 627-35.

(2) The Joint Commission Center for Transforming Healthcare(2010). Hand Hygiene Project: Best Practices from Hospitals Participating in the Joint Commission Center for Transforming Healthcare Project.

(3) Pittet, D. (2001). Improving Adherence to Hand Hygiene Practice: A Multidisciplinary Approach. *Emerging Infectious Diseases* 7(2) 234-240.



## PURELL® Advanced Hygienic Hand Rub is clinically proven to maintain skin health<sup>(4)(5)</sup>



This unique formulation maximises the efficacy of alcohol, allowing it to be capped at just 70% by volume. It also contains a special combination of moisturisers to directly promote skin condition.

In practice many Healthcare Workers have to use hygienic hand rubs up to 50 times a day or more. As a result, product efficacy is not the only issue. Skincare and skin health are also crucially important. This benefit contributes directly to achieving high rates of compliance. For this reason PURELL Advanced Hygienic Hand Rub is:

- Fragrance free
- Gentle on the skin
- Dye-free
- Latex and nitrile glove compatible

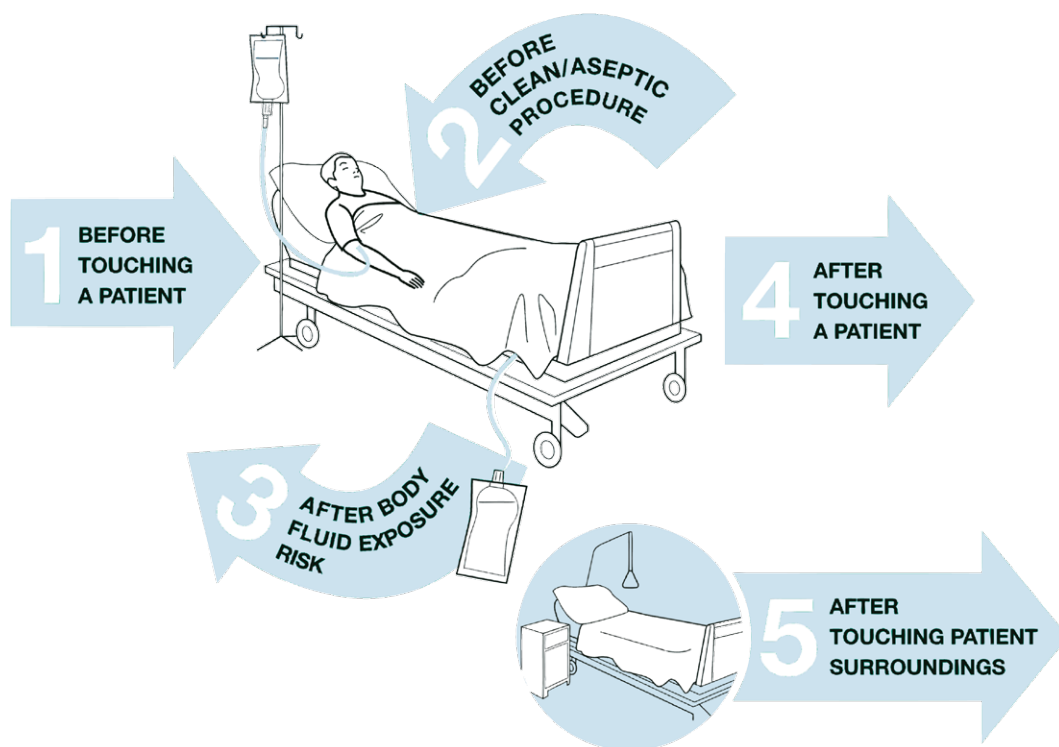
It feels great to use and consistently it is the hygienic hand rub Healthcare Workers want to use. In trials 4 out of 5 Healthcare Workers said PURELL Advanced Hygienic Hand Rub was soothing to their hands<sup>(5)</sup>. An essential quality in environments with high frequency use.

(4) Clinical Field Study # 2011-01-F10233, Conducted at Summa Akron City Hospital, February-March 2011  
(5) 21-Day Cumulative Irritation Assay, Study #2866, Sept 2011, RCTS, Irving, TX

## Having the right products in all the right places is proven to generate higher levels of effective compliance<sup>(1)</sup>

In clinical trials, Healthcare Workers sanitised their hands 20% more often when the PURELL product was provided in PURELL touch free dispensers and point-of-care solutions<sup>(1)</sup>. This is the best way, in practice, to make the WHO's "My 5 moments for hand hygiene"<sup>(2)</sup> approach feasible in busy, environments where there is a high frequency of contact with patients.

### 5 Moments for Hand Hygiene



(1) Larson E., Albrecht., O'Keefe M., Hand Hygiene in a Paediatric Emergency Department and a Paediatric Intensive Care Unit: Comparison of Use of 2 Dispensing Systems, American Journal of Critical Care July, 2005, Volume 14, no 1 p 304-311

(2) WHO guidelines on Hand Hygiene in Healthcare, 2009.

**Our family of PURELL® Advanced Hygienic Hand Rub products is aimed at facilitating effective point-of-care solutions.**

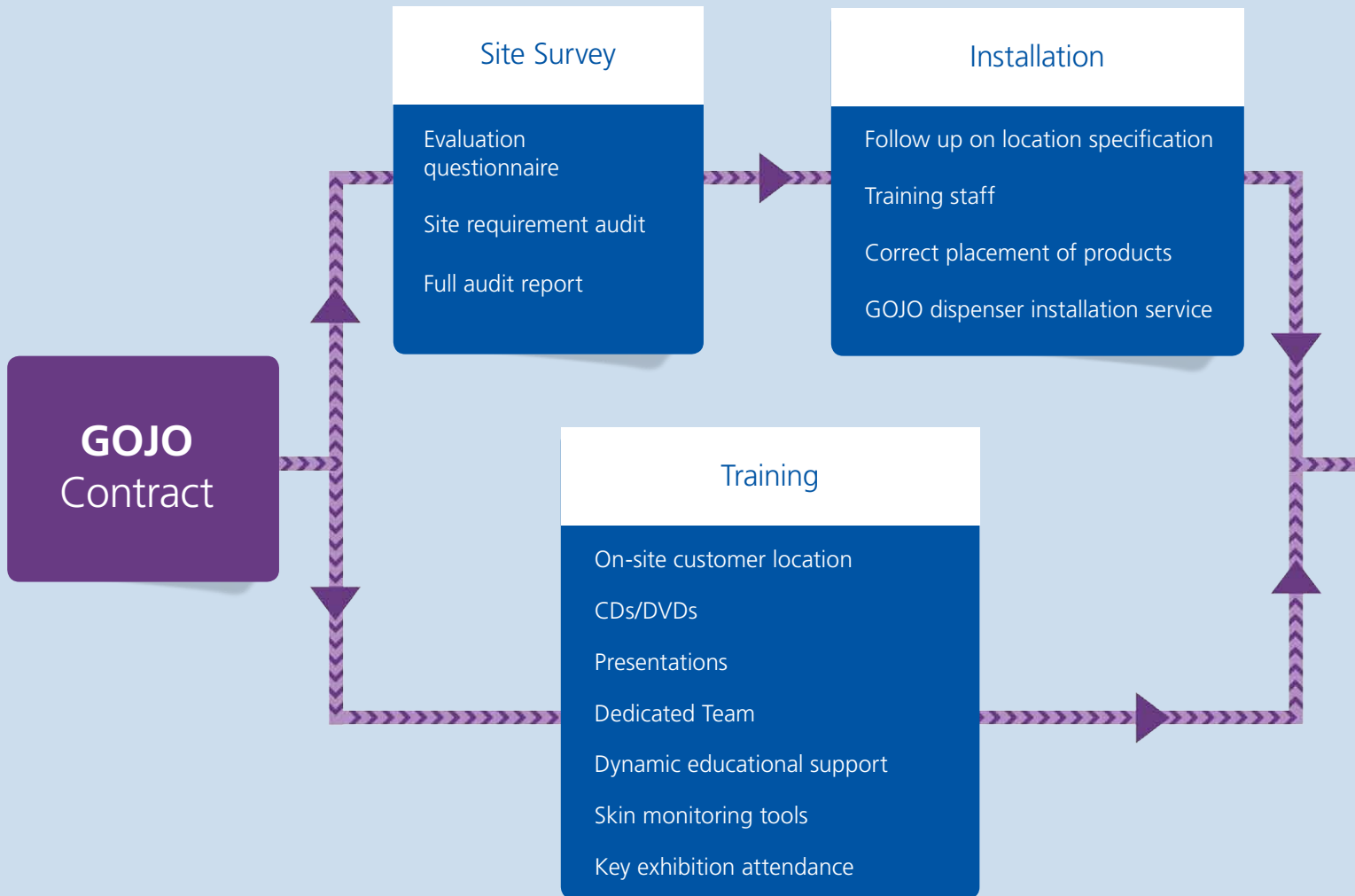
This range of delivery options can help make it easier for staff, patients and visitors to practice good hand hygiene and help maintain a better infection control programme.



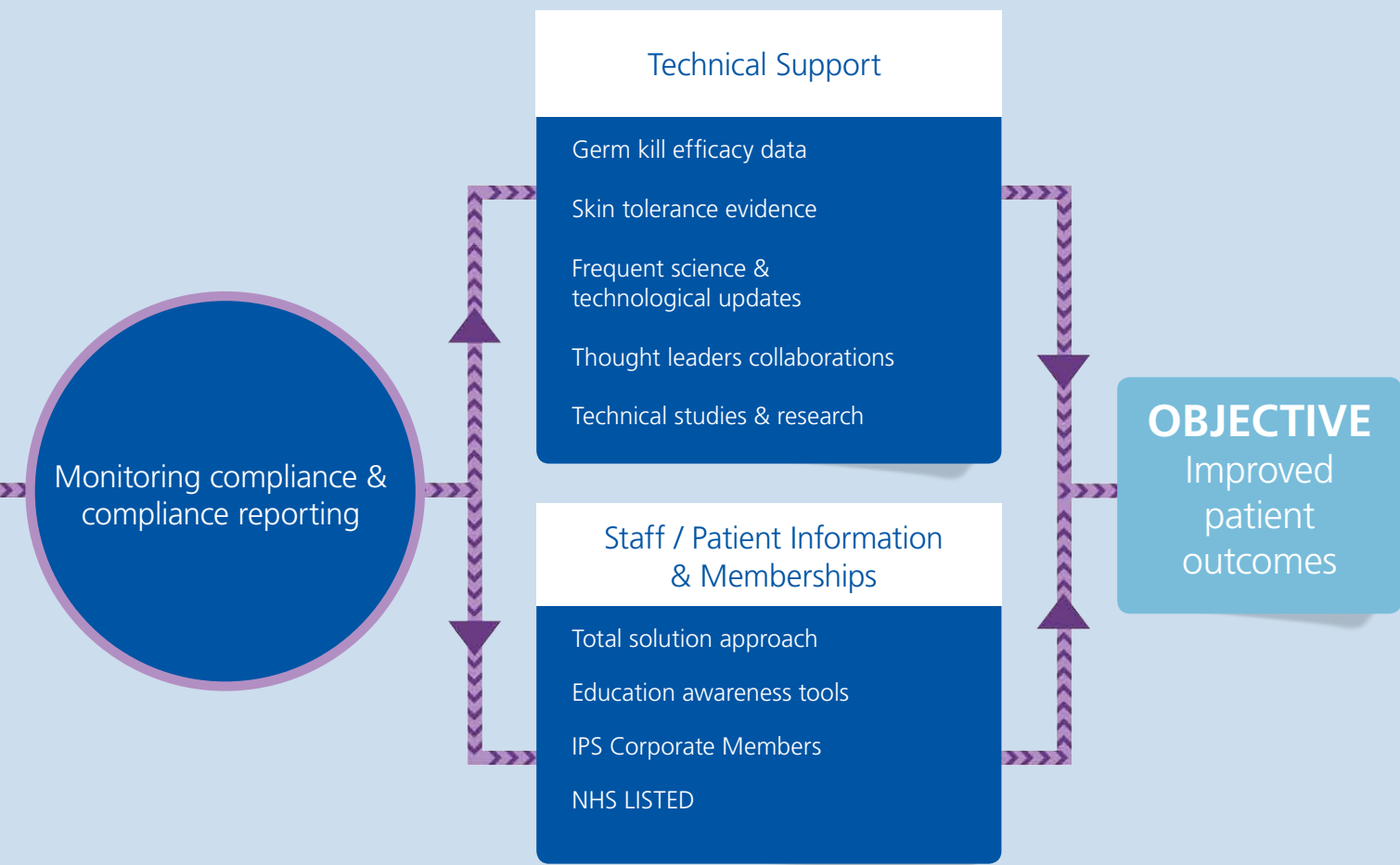
dispensing

## The GOJO comprehensive support programme is dedicated to helping you maximise effective compliance.

With a dedicated sales service specialising in skin care in the working environment, GOJO offers education and training to raise awareness of keeping the skin healthy at all times. Our team will provide a complete skin care regime to encourage correct washing techniques and application.



# superior



support



# founded on innovation

Product Description	Product Code	Case Pack
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**LTX™ Refills and Dispensers**

PURELL® Advanced Hygienic Hand Rub - 700ml Refill	1303-03-EEU00	3
PURELL Advanced Hygienic Hand Rub - 1200ml Refill	1903-02-EEU00	2
PURELL LTX-7™ Dispenser - White	1320-04	4
PURELL LTX-12™ Dispenser - White	1920-04	4

**ADX™ Refills and Dispensers**

PURELL Advanced Hygienic Hand Rub - 700ml Refill	8703-04-EEU00	4
PURELL Advanced Hygienic Hand Rub - 1200ml Refill	8803-03-EEU00	3
PURELL ADX-7™ Dispenser - White	8720-06	6
PURELL ADX-12™ Dispenser - White	8820-06	6

**TFX™ Refill and Dispenser**

PURELL Advanced Hygienic Hand Rub - 1200ml Refill	5476-04-EEU00	4
PURELL TFX Touch Free Dispenser - White	2729-12-EEU00	12

**NXT® Refill and Dispenser**

PURELL Advanced Hygienic Hand Rub - 1000ml Refill	2156-08-EEU00	8
PURELL NXT SPACE SAVER™ Dispenser - White	2039-06-EEU00	6

**GOJO® 800ml Dispenser**

PURELL Advanced Hygienic Hand Rub - 800ml Refill	9657-12-EEU00	12
800ml Dispenser - White	9037-12	12

**Bottles**

PURELL Advanced Hygienic Hand Rub - 350ml Pump Bottle	9659-12-EEU00	12
PURELL Advanced Hygienic Hand Rub - 118ml Bottle	9651-24-EEU00	24
PURELL Advanced Hygienic Hand Rub - 60ml Personal Pump Bottle	9606-24-EEU00	24
PURELL Advanced Hygienic Hand Rub - 30ml Bottle	3901-99-EEU00	250

**Accessories**

SHIELD™ Floor & Wall Protector (LTX & ADX Dispensers)	1045-WHT-12	12
TRUE FIT™ Wall Plate (fits ADX-7 Dispenser)	8790-WHT-12	12
TRUE FIT Wall Plate (fits ADX-12 Dispenser)	8890-WHT-12	12
TRUE FIT Wall Plate (fits LTX-7 Dispenser)	1390-WHT-12	12
TRUE FIT Wall Plate (fits LTX-12 Dispenser)	1990-WHT-12	12
MESSENGER™ Dispenser Station (Must be used with TRUE FIT Wall Plate)	1091-WHT-12	12
SHIELD Floor and Wall Protector (for NXT SPACE SAVER Dispenser)	2145-06	6
SHIELD Floor and Wall Protector (for TFX Touch Free Dispenser)	2760-06	6
PURELL Sanitising Station	2424-DS	1
PLACES™ Holder (wall bracket) (for 350ml bottle)	9005-12	12
HOOK-ON Holder	9007-12	12
PURELL Personal Gear Retractable Clip (for 60ml bottle)	9608-24	24
PURELL Personal Gear Non Retractable Clip (for 60ml bottle)	9613-24	24
PURELL Personal Gear Short Clip (for 60ml bottle)	9612-24	24



Use biocides safely. Always read the label and product information before use.



[www.GOJO.com/unitedkingdom](http://www.GOJO.com/unitedkingdom)

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