

MARKETING TECHNICAL INFORMATION

One of the most effective hand gels on the market today



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BACKGROUND

To hand hygiene in the following settings:

- Healthcare setting
- Office environment
- Food handling environment

Hospital acquired infections, known as **nosocomial infections (NIs)**, remain a global concern. Hand hygiene within a **HEALTHCARE SETTING** is therefore of paramount importance within any infection control policy.

Nurses wash their hands some 13 to 30 times each day (and some up to 44 times). Unless soap and water is close to hand i.e. by a patient's bed, compliance in washing hands regularly is poor and the incidence of infection higher. Compliance for regular hand cleaning is aided by

- 1) easy access to a bedside sink and
- 2) provision of a readily accessible alcohol gel dispenser. (1)

Alcohol based hand gels are now widely used in UK hospitals and other healthcare establishments such as nursing homes, schools and children's nurseries.

Healthcare environments are not the only places where infection is a concern. Increasingly the **OFFICE ENVIRONMENT** is coming under scrutiny:

Dirty or unwashed hands are a major factor towards infection with scientific studies proving that keyboards can contain germs such as E Coli, MRSA and Salmonella. 97% of workers use a computer at work and 90% at home, yet little consideration is given to the crisps, biscuits, saliva etc. cultivating in the desking environment (one survey showed that nine out of ten workers admitted to eating their lunch at their desk).

According to the studies, telephones have up to 25,127 germs per square inch, keyboards 3,295 per square inch and computer mice 1,676 per square inch. Other findings show that an office keyboard is 14 times more contaminated with bacteria than a typical toilet seat and is an easy and fast channel to disease spread such as flu.

Hand hygiene also remains a major concern for personnel working in the food sector and **HANDLING FOOD**. Hands offer an easy route for the spread of harmful bacteria and toxins. Effective hand washing is considered the most important aspect of personal hygiene for food handlers to prevent cross-contamination of food and avoid causing food poisoning.

By law, those working with food must wash their hands when entering a food handling area e.g after a break or going to the toilet (the number of germs doubles on fingertips after using the toilet), before preparing food, after handling raw foods or touching food waste or rubbish, after cleaning or after blowing their nose. (2)

HAND GELS - EFFICACY

Washing hands with plain soap and water has minimal if any antimicrobial activity – it can reduce 'transient' bacteria, but has no real effect on 'resident' hand flora (i.e. permanent inhabitants of the skin). Dermal tolerance with both plain and medicated soap is rather poor with frequent washing causing skin dryness and irritative contact dermatitis (now a major occupational health concern) – which may become infected. (3)

A much greater antimicrobial effect can be achieved with ethanol with the best effect being achieved at a concentration of 60-80%. The activity is broad and immediate. **Alcohol-based hand rubs have good or excellent antimicrobial activity against gram-positive and gram-negative bacteria, fungi, mycobacteria and most viruses.** (4) A 70% alcohol concentration has been recognised for at least 40 years as an optimum concentration for disinfectant properties.

Fungi – less commonly found than bacteria as causative agents of NIs, but their frequency and importance are increasing.

Some key offenders:

Staphylococcus aureus – more commonly known as the **MRSA superbug**, is the most common gram-positive bacterium causing NIs. Colonisation of healthcare worker's hands has been recorded as between 10.5 – 78.3% and lasts for at least 150 minutes. When present in food, this bacteria produces a toxin that can cause severe food poisoning, survive boiling for long periods and grow at temperatures as low as 7°C.

Escherichia coli – the most common gram-negative bacterium, causing mainly urinary tract infections. Another bacteria that can cause food poisoning.

Pseudomonas aeruginosa - also a very common gram negative bacterium, chiefly causing lower respiratory tract infections.

Clostridium difficile – the main spore-forming bacterium causing NIs and now being termed the **latest superbug** – the incidence of infection with this bacterium rose by 8% in 2006 in the over 65's. It is the most serious cause of antibiotic-associated diarrhoea. Its ability to produce spores allows it to survive outside the body for up to seventy days, living on floors and toilets. (5) It can even protect itself from some cleaning agents, although bleach is normally effective.

HandiSan kills 99.99% of most common organisms that may cause illness (refer testing).

In relation to viruses, most colds, for example are caused by rhinoviruses, which spread through the air when someone with an infection coughs or sneezes. Viruses can be inhaled, but an individual is more likely to get sick if they touch their eyes, nose or mouth after handling a contaminated object. Telephones, computer keyboards and doorknobs are especially notorious for harboring these germs.

But catching colds and other viruses isn't inevitable. Scrubbing the hands for at least 15 seconds with ordinary soap and water or using an **alcohol-based sanitiser** frequently destroys most viruses, which can linger on surfaces for up to 48 hours. And although hand washing remains the best defense against illness, common-sense suggestions such as these also can help:

- Use a paper towel rather than a cloth one to dry hands with.
- Cover your mouth and nose when coughing or sneezing. Use a tissue and dispose of it carefully.
- Regularly clean desks, phones and computer keyboards — at home and at the office — with sanitising wipes.
- Clean other hard surfaces (e.g. kitchen worktops, door handles) frequently using a normal cleaning product.
- Avoid sharing dishes, towels or silverware.
- Make a serious effort to manage stress, which lowers immunity and may make an individual more susceptible to illness.
- Boost natural immunity with regular exercise and a healthy diet.

Hand washing is the single most important activity for preventing cross infection.

Drying hands thoroughly is essential – 1000 times as many germs spread from damp hands as dry hands.

ACCEPTABILITY

The problem with frequent washing with soap (medicated or non-medicated) and water is the tendency to cause skin dryness, cracking or redness. A single hand wash significantly reduces sebum (oil) content for up to an hour and adversely affects skin hydration – frequent hand washing means that the skin does not get a chance to recover.

Likewise, continual use of an alcohol hand rub can also lead to dryness and thus lower compliance. It is therefore usual practice to add emollients, such as glycerine, to the hand rub.

- ↳ An alcohol-based hand rub with emollients has been shown to produce significantly less skin irritation and dryness than soap and water.

HandiSan contains both emollients and a rehydrating system to protect the skin from dryness and irritation. Its unique formulation is specifically designed to allow effective coverage before drying in order to achieve effective all over kill.

In addition, **HandiSan** dries in a manner so as to avoid the unpleasant cold shock associated with other alcohol based hand gels and to leave the hands feeling non-sticky or 'heavy' or 'coated'. The overall impression in our trials after application is that of a smooth well conditioned skin.

INDEPENDENT LABORATORY TESTING OF HANDISAN (copies available)

The most widely used test in Europe to evaluate the efficacy hand-hygiene agents is European Standard EN1500 – 1997 (Chemical disinfectants and antiseptics. Hygiene hand-rub test method and requirements) which **HandiSan** passes comfortably. As stated in the most recent WHO guidelines (August 2009) an EN1500 validated alcohol hand gel formulated product is regarded as acceptable and complies with their requirements. (6)

HandiSan also meets the requirements of EN12054, EN1276, EN13727, and because it contains an additional antimicrobial agent, also conforms to EN13704, the European standard for efficacy against sporicidal bacteria.

Testing by the Government Veterinary Laboratories has further shown **HandiSan** to conform to EN14675 (European standard for efficacy against viruses).

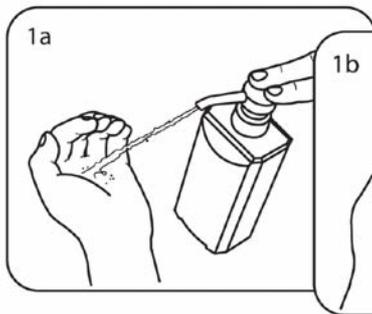
PACKAGING INFORMATION

Delf offers the following pack sizes:

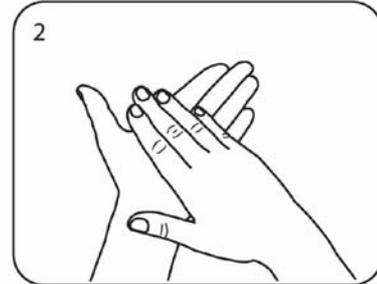
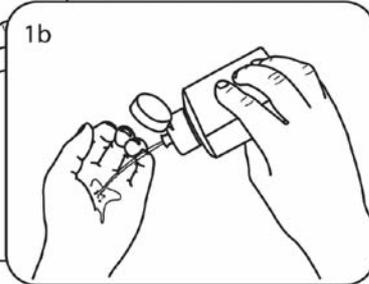
Stock Code	Pack Size	Cap Type	Comment
M-AHR30	30ml (sample)	Pump dispenser	
M-AHR50	50ml	Flip cap or pump dispenser	Pocket clips, lanyards available
M-AHR100	100ml	Flip cap or pump dispenser	Pocket size
M-AHR500	500ml	Pump dispenser	Suitable for desk top
M-AHR5L	5 Litre	Standard cap	For refilling dispensers/ other packs Dispensers available
M-AHR1000L	1000 Litre	IBC container	Bulk size for economy

Shelf Life: minimum 2 years from date of manufacture

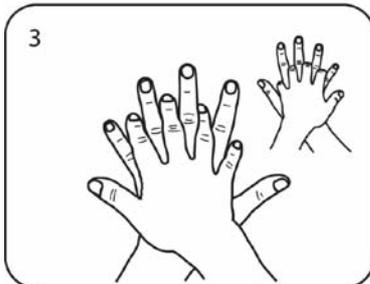
Hand Washing Procedure with Alcohol-Based Formulation



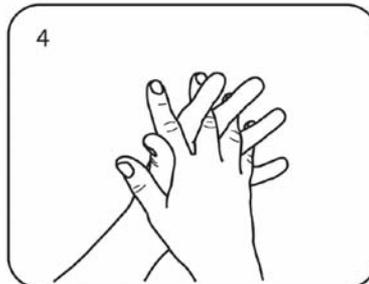
Apply a palmfull of the product in a cupped hand and cover all surfaces.



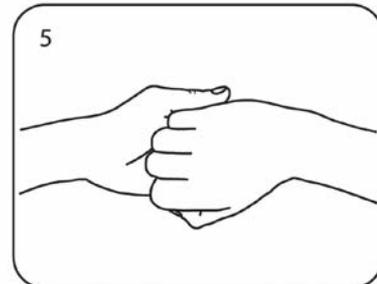
Rub hands palm to palm



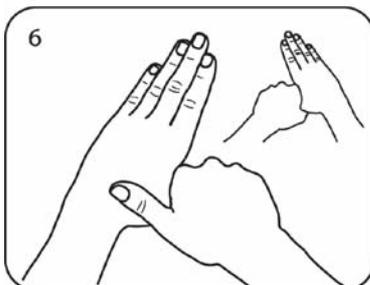
right palm over left dorsum with interlaced fingers and vice versa



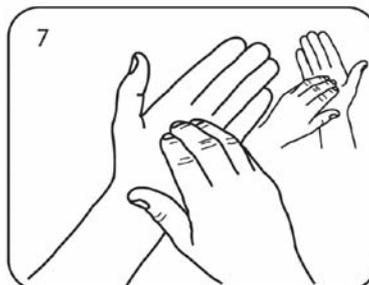
palm to palm with fingers interlaced



backs of fingers to opposing palms with fingers interlocked



rotational rubbing of left thumb clasped in right palm and vice versa



rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa



Duration of the entire procedure: 20-30 sec

...once dry, your hands are safe.

Source: World Health Organization. WHO Guidelines on Hand Hygiene in Health Care, 2009, page 155.

- Rub hands together, covering all surfaces of hands and fingers, until hands are dry.
- Do not rinse.
- Note: When there is visible soiling of hands, they should first be washed with soap and water before using waterless hand rubs, gels or alcohol swabs.
- If soap and water are unavailable, hands should first be cleansed with detergent-containing towelettes, before using the alcohol-based hand rub, gel or swab.

References

1. JM Boyce. (2001) Antiseptic Technology: Access, Affordability and Acceptance. *Emerg Infect Dis.* 7(2).
2. Food Standards Agency (2006). Food Hygiene – A Guide for Businesses.
3. G Kampf, A Kramer. (2004) Epidemiologic Background of Hand Hygiene and Evaluation of the Most Important Agents for Scrubs and Rubs. *Clin Microbiol Rev.* 17(4):863-893.
4. JM Boyce, D Pittet. (2002) Centers for Disease Control and Prevention. Guideline for Hand Hygiene in Health-Care Settings: Recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force. *MMWR* 2002;51 (No. RR-16):1-44.
5. Association of Medical Microbiologists (www.amm.co.uk).
6. WHO (2009) WHO Guidelines on Hand Hygiene in Health Care.

OTHER PRODUCTS IN THE DELF HEALTHCARE RANGE

Healthcare

Pine Disinfectant

Strong Amber Disinfectant

Antiseptic Disinfectant

Lysol Disinfectant

Bactericidal Dishwash Cleaner

Multi Surface Cleaner

Bactericidal Hard Surface Cleaner

Shower Tile Cleaner

Surgical Equipment Cleaner / Sanitiser

Wet Wipes / Biowipes

Hand Sanitising / Probe and Equipment Wipes

BluBac Bactericidal Hand Cleaner

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