



Antibacterial Skin and Hand Moisturising System







What makes Sychem PROTECT products unique?

In addition to high levels of antimicrobial efficacy Sychem PROTECT products are fragrance free, water based, alcohol free, sanitise and moisturise the skin simultaneously and exhibit the following key qualities when in use:-

- non-corrosive
- non-irritant
- non-toxic
- non-flammable
- food safe
- safe in use
- cost effective
- easy to use with excellent levels of user acceptance
- prolonged antimicrobial effect for up to two hours post-application
- leaves no sticky residue or tackiness on the skin after use

What is PROTECT Technology™?

PROTECT is a disinfectant / antiseptic technology platform. It is intended for use as a skin antiseptic and offers safe, effective, user friendly skin cleansing, disinfection and sanitation across a wide range of industries. From healthcare to educational establishments, food processing to veterinary science, Sychem PROTECT is a proven technology safe to use in all associated food, animal and human environments.

The PROTECT Technology $^{\text{TM}}$ platform is based around the quaternary ammonium compound benzalkonium chloride (BAC) with an adjuvant effect to enhance its antimicrobial efficacy.

The Sychem PROTECT range

Sychem PROTECT products are specifically designed to reduce the risk of infection, cross infection, cross contamination, spoilage etc. which occurs as a result of contact via the hands and skin. Products are available in three formats (see Figure 1):-

• Hand sanitising foam rub:

- 50mL pump dispenser pocket size and easy to carry for personal use when on the move.
- 600mL pump dispenser ideal for use in communal areas, waiting rooms, receptions, toilets, hand sanitising stations etc., where hand washing is unavailable.
- 1000mL refill cartridge for wall mounted dispenser perfect for industrial use and areas where hand hygiene is essential, e.g. hospitals, food preparation facilities, clean room manufacturing etc.

Hand wash:

1000mL cartridge for wall mounted dispenser where running water is available - perfect for industrial use and areas where hand hygiene is essential, e.g. hospitals, food preparation facilities, clean room manufacturing etc.

Skin wash:

1000mL cartridge for wall mounted dispenser - ideal in place of soap / shower gel / shampoo, Sychem PROTECT skin wash decolonises, cleans and conditions the skin and hair and is intended for all over body use.

All Sychem PROTECT products are fully compliant with all current legislation including the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Directive.

How effective is PROTECT Technology™ against microbes?



Extensive testing at independent, accredited laboratories has demonstrated that the performance of PROTECT Technology™ products is at least equivalent to alcohol based hand rubs.

PROTECT Technology™ products offer broad spectrum efficacy and are effective against non-enveloped viruses which is something that few alcohol based hand rubs can claim.

See Table 1 for details of the antimicrobial efficacy testing that PROTECT Technology $^{\text{TM}}$ products have passed.



TABLE 1. Antimicrobial efficacy of PROTECT Technology™

MICROBIAL CLASS	ANTIMICROBIAL EFFICACY TEST*	CONTACT TIME (SECONDS)	LOG REDUCTION
BACTERIA (Gram-positive/Gram-negative)	FDA Monograph ¹	15	>5
BACTERIA (<i>E. coli</i>)	EN 1500 ²	15	>3
BACTERIA (<i>E. coli</i>)	EN 1499:2013 ³	60	Exceeds test specification
VIRUSES (enveloped and non-enveloped)	EN 14476 ⁴	60	>3
FUNGI	AOAC - Fungicidal ⁵	15	>5



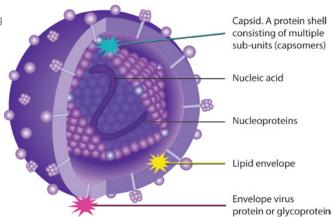
* With the exception of EN1500 all testing was performed using hard water and under dirty conditions in order to present the toughest challenge to the PROTECT Technology™ platform

Figure 1. The Sychem PROTECT product range

How does PROTECT Technology™ kill micro-organisms?

PROTECT Technology™ kills microorganisms by simultaneously attacking multiple microbial structures and components which are all essential to life (see Figure 2). The result is a rapid microbial kill of bacteria, viruses and fungi.

Figure 2. Schematic diagram highlighting the key viral structures affected by PROTECT Technology™



References

- 1. FDA Monograph. (59 FR 31402) 21 CFR Parts 333 and 369 Tentative Final Monograph for Health-Care Antiseptic Drug Products.
- 2. Manchester University. Chemical disinfectants and antiseptics hygienic hand rub. Efficacy Tests BS EN 1500:1997 Test method and requirements (phase 2, step 2). Manchester,
- 3. Manchester University. Chemical disinfectants and antiseptics. Hygienic handwash. Efficacy Tests BS EN 1499:2013 Test method and requirements (phase 2, step 2). Manchester, UK. *
- 4. Manchester University. EN14476:2005 Chemical disinfectants and antiseptics - virucidal quantitative suspension test for chemical disinfectants used in human medicine (Phase 2, Step 1). Manchester, UK. February
- 5. ATS Labs. AOAC Fungicidal efficacy Test. Eagan, MN, USA. April 2009. *
- 6. Weinstein RA. Epidemiology and control of nosocomial infections in adult intensive care units. Am J Med 1991 Sep 16;91(3B):179S-184S
- 7. World Health Organisation. WHO Guidelines on Hand Hygiene in Health Care: First Global Patient Safety Challenge. Clean Care is Safer Ćare Geneva: WHO Press; 2009

Why, where, when and how should I use Sychem PROTECT products?

Why... Hand hygiene is crucial in many industries such as food manufacturing, healthcare and animal husbandry. For example, within hospitals up to 40% of infections have been attributed to cross infection via the hands of healthcare workers ⁶ and hand hygiene within healthcare is a key focus for the World Health Organisation (WHO). 7 Sychem PROTECT products interrupt the key transmission pathway of the hands (skin) by reducing the bioburden (i.e. number of microbes present) on the skin to its lowest possible level. This reduces the risk of infection, cross infection, contamination, spoilage etc. that may occur as a result of skin contact.

Where... In situations where skin and / or hand hygiene are of paramount importance Sychem PROTECT products provide highly effective skin and hand hygiene solutions.

When... To get the best results Sychem PROTECT products should be used frequently, i.e. at every point where you would normally sanitise your hands with a gel or rub, simply substitute Sychem PROTECT products into your hand sanitising protocol. Frequent and thorough hand sanitation with Sychem PROTECT products will ensure you get the best out of the product and your skin remains as clean as possible for as long as possible.

How... Sychem PROTECT products are very simple to use and will fit seamlessly into your existing hand sanitation / skin cleansing protocols with little or no training required. Where your staff are already trained in the six-step hand sanitising technique there is no need for additional training.

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