

Sustainable procurement quick guide

Routine hand hygiene*

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SUSTAINABLE PROCUREMENT QUICK GUIDE » ROUTINE HAND HYGIENE

Introduction

Infection prevention and control in health care are of primary importance. Hand hygiene remains one of the most critical infection prevention strategies in health care.

Antimicrobials remain one of the most important lines of defense in the prevention of infection.

However, common antimicrobial ingredients, such as triclosan and triclocarban, which are used widely in health care for hand hygiene, have also been shown to pose hazards for employees and the environment and may increase antimicrobial resistance.

Definition

A hand hygiene product is any product used for hand hygiene, including liquid soap, bar soap, foam soap, hand sanitizer, hand rub, antiseptic, or lotion.

Why hand hygiene

Hand hygiene is universally recognized as the most critical first defense against infectious diseases.

Health care workers can wash or sanitize their hands in a single shift as many as 100 times, according to the U.S. Centers for Disease Control and Prevention, leading to measurable exposures.

Health care workers' protection

- Apply the [hierarchy of controls](#) (the occupational health framework) to determine whether a chemical is necessary. For hand hygiene, in many cases, soap and water are effective. When hands have organic matter on them, it is necessary to clean with soap and water prior to disinfection for the disinfectant to be effective.
- Mind the importance of combining correct hand hygiene with skin care. Employees may have skin types with different levels of sensitivity, so it may be beneficial to have more than one hand rub available and be mindful of how staff members respond.
- [Wear gloves only when recommended](#). (The use of gloves does not replace the need for hand hygiene by either hand rubbing or handwashing.)

Health Care Without Harm's target goal

Health Care Without Harm aims to purchase soap without disinfectants and fragrance.

Where hand disinfection is required, use alcohol-based hand formulations. Phase out the use of disinfectants in hand hygiene products that are harmful to human health and the aquatic environment, including triclosan, triclocarban, chlorhexidine gluconate*, polyhexamethylene biguanide (PHMB), and silver.

Safer alternatives

Alcohol-based hand hygiene products are recommended for routine hand antisepsis in most clinical situations where disinfection is required based on efficacy, tolerability, and cost effectiveness.

- World Health Organization gives [instructions for preparing two effective alcohol-based hand rub formulations](#) for in-house and local production as an alternative when suitable commercial products are either unavailable or too costly. The formulations are, according to current scientific evidence, effective against coronaviruses.
- WIDES database: To find safer hand hygiene products, [consult the WIDES database](#), which helps procurers choose the most suitable product by comparing hazard profiles of frequently used hand hygiene products for specific applications.

Procurement criteria

Health Care Without Harm recommends health care facilities:

- Have a sustainable procurement policy in place prior to procurement planning
- Ask suppliers for products' safety data sheets (SDS)
- Request a full list of product ingredients

Case studies

- [Mayo Clinic hand hygiene initiative: Eliminating antimicrobial hand soaps](#)
- [Providence St. Patrick Hospital: Eliminating hand soaps containing triclosan](#)

Avoid

Health Care Without Harm recommends avoiding hand disinfectants containing ingredients that have sensitising, carcinogenic, mutagenic, repro-toxic, or chronic toxicity properties or that are toxic towards aquatic organisms.

Health Care Without Harm recommends avoiding perfume/fragrances, colorants, [quaternary ammonium compounds](#), [triclosan \(3380-34-5\)**](#), [triclocarban \(101-20-2\)](#), [chlorhexidine gluconate \(18472-51-0\)*](#), [polyhexamethylene biguanide hydrochloride \(PHMB\) \(32289-58-0\)](#), [silver \(7440-22-4\)](#), and [intentionally added microplastics/microbeads](#).

Additional information

- Health Care Without Harm Europe: [SAICM 2.0](#)
- Health Care Without Harm Global: [Chemicals of concern to health and environment](#)
- Practice Greenhealth: [Safer hand hygiene get-started guide](#)
- Practice Greenhealth: [Safer hand hygiene toolkit](#)
- World Health Organization: [Recommended hand rub formulations](#)
- Health Care Without Harm Latin America [ES]: [Guía para la sustitución de químicos peligrosos en el sector salud](#)

****This guide does not apply to surgical hand scrubs.**

****Banned already in many countries, including Argentina and the United States.**