



# Antimicrobial Products in the Community

**POSITION STATEMENT** 

### Background

The use of antimicrobial products in the home has grown rapidly over the past two decades. While the majority of these products are in cosmetic or skin antiseptics such as antibacterial soaps and body washes, antimicrobial agents are also used as preservatives in natural health products, as pest-control products<sup>(1)</sup>, and impregnated in numerous household products domestic products (e.g., clothing, toys, kitchen utensils, towels and bedding)<sup>(2)</sup>. Some antimicrobial agents such as triclosan build up in the environment and accumulate in household dust, increasing exposure for small children<sup>(2)</sup>, and in water, impacting ecosystems and wildlife. Toxic by-products of triclosan have potential to cause hormone disruption and cancer.<sup>(3,4,5)</sup>

Most common household illnesses are caused by viruses, against which antibacterial agents are ineffective. Long-term regular use of these antimicrobial products may also lead to the development of antimicrobial resistance<sup>(6)</sup>. In light of this information, both Public Health Agency of Canada and the Food and Drug Administration in the United States are requiring manufactures to prove the safety and efficacy of antibacterial products<sup>(6,7)</sup>. To date there is no evidence to indicate that antimicrobial products are safer or more effective than plain soap and water<sup>(8)</sup>.

Note regarding hand hygiene products: Antibacterial soap should not be confused with alcoholbased hand rubs (ABHRs) which contain alcohol. ABHRs are effective in killing most germs, including bacteria and viruses, on the surfaces of hands. Alcohol-based hand rubs do not contain chemicals that are harmful to the environment and do not promote the development of resistance. These products can be used as an effective alternative to hand washing with plain soap and water as long as hands are not visibly soiled.

Even within the healthcare setting, plain soap is used for hand cleaning. Antibacterial soap may be considered for use in critical care areas such as intensive care and burn units where patients are highly susceptible to infection. Antibacterial soap is generally not required and not recommended in other care areas.

#### **Position Statement**

In community/home settings, the use of antimicrobial products, including toys, towels, animal and personal care products such as hand soaps, has not been found to be of additional benefit and may have adverse effects related to their chemical ingredients. Therefore their use in community settings is not recommended. Emphasis should continue to be placed on effective hand washing with plain soap, good personal hygiene, safe food preparation, and basic home cleanliness.

#### **Stakeholders**

Infection Prevention and Control Professionals, health care workers, and their clients (the Canadian public).

## **Participants in Development of Position Statement**

This position statement was developed by Standards and Guidelines Committee and reviewed in collaboration with the Environmental Health Interest Group.

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#### References

- Health Canada Environment Canada: Preliminary Assessment: Triclosan. March 2012. Available from <u>http://www.ec.gc.ca/ese-ees/6EF68BEC-5620-4435-8729-</u> <u>9B91C57A9FD2/Triclosan\_EN.pdf</u>.
- Allen UD, Canadian Paediatric Society (CPS) <u>Infectious Diseases and Immunization Committee</u>. Antimicrobial products in the home: The evolving problem of antibiotic resistance. May 2006; reaffirmed Feb. 2016. Paediatr Child Health 2006;11(3):169-173. Available from <u>http://www.cps.ca/documents/position/antimicrobial-products-in-the-home</u>.
- Thorpe B. for the Canadian Environmental Law Association. Chemicals in consumer products are draining trouble into the Great Lakes ecosystem: GreenScreen<sup>®</sup> assessment shows triclosan and triclocarban should be avoided. July 2014. Available from <u>http://www.cela.ca/sites/cela.ca/files/TC-TCC-CELA-997.pdf</u>.
- <u>Dhillon GS</u>, <u>Kaur S</u>, <u>Pulicharla R</u>, <u>Brar SK</u>, <u>Cledón M</u>, <u>Verma M</u>, <u>Surampalli RY</u>. Triclosan: Current status, occurrence, environmental risks and bioaccumulation potential. Int J Environ Res Public Health. 2015 May 22;12(5):5657-84. Available from <u>https://www.ncbi.nlm.nih.gov/pubmed/26006133</u>
- Bedoux G, Roig B, Thomas O, Dupont V, Le Bot B. Occurrence and toxicity of antimicrobial triclosan and by-products in the environment. Environ Sci Pollut Res Int. 2012 May;19(4):1044-65. Available from <u>https://www.ncbi.nlm.nih.gov/pubmed/22057832</u>.
- Food and Drug Administration. Safety and Effectiveness of Consumer Antiseptics; Topical Antimicrobial Drug Products for Over-the-Counter Human Use. September 6, 2016. Available from <u>https://www.federalregister.gov/documents/2016/09/06/2016-21337/safety-and-</u> <u>effectiveness-of-consumer-antiseptics-topical-antimicrobial-drug-products-for</u>.
- Public Health Agency of Canada (PHAC) (2013). The Chief Public Health Officer's report on the state of public health in Canada, 2013. Infectious Diseases -The never ending threat. Antimicrobial resistance-a shared responsibility. Available from <u>http://www.phac-aspc.gc.ca/cphorsphc-respcacsp/2013/assets/pdf/2013-eng.pdf</u>.

 Food and Drug Administration. Antibacterial Soap? You Can Skip It -- Use Plain Soap and Water. (Sept 2, 2016). Available from http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm378393.htm.

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