

## **Interim List of Household Products and Active Ingredients for Disinfection of Novel Coronavirus (2019-nCoV)**

Many general household products contain the appropriate concentrations of active ingredients (A.I.) that are known to inactivate coronaviruses. For general precautionary cleaning, detergent and water are adequate. For disinfection of areas that are very likely to be contaminated with 2019-nCoV (e.g. bedroom of a person confirmed to have a 2019-CoV infection), disinfectant/cleaning products listed in Table 1 can be used. The product list is based on currently available data and active ingredients known to be effective against coronaviruses (Table 2). Both tables will be updated as data from more products are gathered, and as more products are assessed to be appropriate.

In addition to the use of cleaning agents, other treatments effective against coronavirus include steam and heat treatment.

Important points to note:

1. Check the labels and use according to instruction, and be aware of the potential hazard of each product.
2. For disinfection of highly contaminated surfaces or material, avoid the use of spray, and allow appropriate time needed for disinfection (refer to product instruction).
3. This product list should be read in conjunction with the Guidelines and Advisories issued by NEA with instruction and guidelines on how to conduct proper cleaning and disinfection of premises.

**Table 1 List of Household Disinfectants/Cleaning Products Effective Against Coronaviruses**

	<b>Product Name</b>	<b>Active Ingredients</b>
1	Simple Green Clean Finish	Alkyl dimethyl benzyl ammonium chlorides 0.15% Alkyl dimethyl ethyl benzyl ammonium chlorides 0.15%
2	Clorox Disinfectant Wipes	Alkyl dimethylbenzyl ammonium chloride 0.13%
3	Clorox Scentiva Disinfectant (Various Scents)	Alkyl dimethyl benzyl ammonium chloride 0.3%
4	Dettol Anti-bacterial Surface Cleanser Trigger Spray	Benzalkonium chloride 0.096%
5	Dettol Healthy Clean Kitchen	Benzalkonium chloride 0.1%
6	Dettol Healthy Clean Bathroom	Benzalkonium chloride 0.1% Hydrogen peroxide 1%
7	Mr Muscle 5 in 1 Multi-Purpose Cleaner (Various Scents)	Quaternary ammonium compounds 0.16%
8	Dettol Laundry Sanitiser	Chloroxylenol 2%
9	Walch Laundry Sanitiser	Chloroxylenol 2.3-2.5%

10	Walch Antiseptic Germicide	Chloroxylenol 4.5-5.5%
11	Dettol Antiseptic Germicide	Chloroxylenol 4.8%
12	Dettol Antiseptic Disinfectant Liquid	Chloroxylenol 4.8%
13	Kao Bleach Liquid	Hypochlorite > 1%
14	Clorox Clean-Up Cleaner + Bleach	Sodium hypochlorite 1.84%
15	Clorox Toilet Bowl Cleaner with Bleach	Sodium hypochlorite 2.40%
16	Essential Waitrose Thick Original Bleach	Sodium hypochlorite 2.5-5.0%
17	Budget Bleach	Sodium hypochlorite 3.25%
18	Giant All Purpose Household Bleach	Sodium hypochlorite 5.25%

Each of the disinfectant product typically comprises one of three active ingredients namely, quaternary ammonium compounds, chloroxylenol and sodium hypochlorite. Avoid contact with eye and skin. When sodium hypochlorite is used on metal, wipe away residues after 10 minutes with wet cloth as it is corrosive to metals.

**Table 2. Active Ingredients and their Working Concentrations Effective Against Coronaviruses**

	<b>Active Ingredient (A.I.)</b>
1	Sodium hypochlorite (0.1 – 0.5%) <sup>1</sup>
2	70% ethyl alcohol <sup>1</sup>
3	Povidone-iodine (1% iodine) <sup>1</sup>
4	Chloroxylenol (0.24%) <sup>2</sup>
5	50% isopropanol <sup>3</sup>
6	0.05% benzalkonium chloride <sup>3</sup> (Quaternary Ammonium Compound)
7	50ppm iodine in iodophor <sup>3</sup>
8	0.23% sodium chlorite <sup>3</sup>
9	1% cresol soap <sup>3</sup> (sodium alkyl-ben-zene sulfonate)
10	Hydrogen peroxide (0.5-7.0%) <sup>4</sup>

<sup>1</sup> Sattar SA, Springthorpe VS, Karim Y, Loro P. (1989). Chemical disinfection of non-porous inanimate surfaces experimentally contaminated with four human pathogenic viruses. *Epidemiol. Infect.* 102:493-505; Tested against coronavirus 229E.

<sup>2</sup> Wood A, Payne D. (1998) The action of three antiseptic/disinfectants against enveloped and non-enveloped viruses. *Journal of Hospital Infection.* 38:283-295; Tested against human coronavirus

<sup>3</sup> Saknimit M, Inatsuki I, Sugiyama Y, Yagami K. (1988) Virucidal efficacy of physico-chemical treatments against coronaviruses and parvoviruses of laboratory animals. *Jikken Dobutsu*. 37:341-5; Tested against canine coronavirus

<sup>4</sup>Centers for Disease Control and Prevention. (2008) *Guideline for Disinfection and Sterilization in Healthcare Facilities*, U.S. Centers for Disease Control and Prevention.

Any company marketing disinfectants that are effective against coronaviruses can contact us at 1800-CALL NEA (1800-2255 632) or submit your enquiries electronically via the Online Feedback Form or myENV mobile application.

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Released on 04 February 2020