

**Some Disinfectants Effective Against Feline Calicivirus (as a surrogate for Norovirus)**

Product Name	Manufacturer	Main Active Ingredient(s)	Application(s)	Contact Time (minutes)	Log <sub>10</sub> Reduction	Safety Profile (as used)	Cost/Liter (as used)
Accelerated Hydrogen Peroxide™	Virox Technologies	0.5% hydrogen peroxide (RTU)	RTU liquid, wipes, concentrate (mix 1:16)	2	> 4.7	Non-toxic	\$0.12
Big Spray®	Antiseptica	25.92% ethanol, 11.5% 2-propanol, 0.054% polyhexanide	RTU liquid	1	> 4.7	Eye, lung, skin irritation; flammable	\$9.00
Bleach	(generic)	0.1% (1000 ppm) Sodium hypochlorite	Powder, liquid	1	> 4.7	Eye, lung, mucous membrane and skin irritation	\$0.01
Coverage 256®	ConvaTec	4 QUATS, 2470 ppm @ 1:62	Concentrate, mix 1:62	10	4.0	Eye, lung, mucous membrane and skin irritation	\$0.08
EcoTru®	EnviroSystems	0.2% parachlorometaxylenol	RTU liquid, wipes	30	4.12	Non-toxic	\$2.75
Ethanol	(generic)	75% ethanol	RTU @ 75%	10	4.7	Eye, lung, skin irritation; flammable	\$1.50
Lysol® Disinfectant (Aerosol) Spray	Rickitt Benckiser	79% ethanol, 0.1% QUAT	RTU spray	3	3.4	Eye, lung, skin irritation; flammable	\$16.00
Mikro-Bac® II	Ecolab	4.75% o-phenylphenol, 4.75% o-benzyl-p-chlorophenol	Concentrate, mix 1:128	10	6.2	Toxicity to brain (ethylene glycol), kidneys, liver, lungs, skin; carcinogen (OPP); teratogen (ethylene glycol)	\$0.04
Virkon®	Antec International	21.45% Peroxomonosulphate	Powder, mix as a 1% or 2% solution	10	> 4.0 @ 1% solution	Non-toxic	\$0.35
Cryocide 20™ (efficacy testing is pending)	R.P. Adam	0.75% Stabilized chlorine dioxide + twin chain QUAT	RTU liquid	N/A	N/A	Eye, lung (ClO <sub>2</sub> gas), skin irritation	\$22.50

From Sattar and Wheeler, Seatrade Cruise Shipping Convention, Miami, March 4, 2003.

**Comments:**

A Log<sub>10</sub> reduction of 4 (99.99%) or greater is considered adequate for FCV/Norovirus disinfection. Products listed as non-toxic may still cause mild eye and/or skin irritation in some people. Some compounds may leave a surfactant residue on various surfaces. When selecting a disinfectant, it's important to consider the product's entire formulation since there may be significant disinfectant action synergism produced by the specific combination of ingredients. It is recommended that you test any specific disinfectant for adverse effects on your own ships' environmental surfaces prior to its general use.