

AQUAPLAN INFORMATION LEAFLET

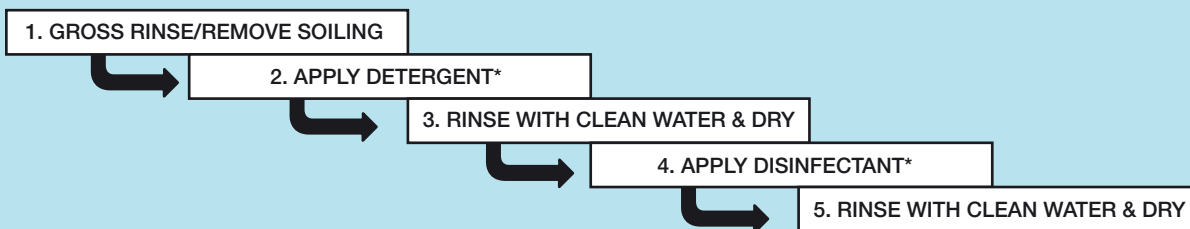


CLEANING & DISINFECTION

PRINCIPLES

- A disinfectant can be defined as a substance which can destroy or inhibit the growth of a disease causing organism.
- All organic material should be removed prior to disinfection, as only clean equipment should be disinfected.
- Staff should avoid contact with hazardous substances through wearing the correct protective clothing throughout the procedure and be familiar with the material safety data sheets.
- Each site should have a defined procedure for cleaning and disinfection. This includes a cleaning schedule, a chemical log of disinfectants on site (including expiry dates) and should form an integral part of the site biosecurity plan.

PROCEDURE



- *Detergents and disinfectants should be used and disposed of, in accordance with the manufacturers' instructions. Recommended concentrations and contact times should be followed.



DISINFECTANT/CLEANER	EXAMPLE ¹	DOSE	ADDITIONAL INFORMATION ¹
Chloramine T	Halamid®	1 – 2% (w/v), 30 min	Reported effective against a range of bacteria and viruses, including IPNV, ISA and <i>G. salaris</i> www.halamid.com
Iodophor	FAM30®, Virudine Vanodine	1:100 – 1:600, 10 minutes	Reported effective against ISA and IPNV. Loss of brown colour indicates loss of efficacy. Iodine requires neutralisation before discharge. Stains and is corrosive. www.evansvanodine.co.uk
Peroxy compounds	Virkon® Aquatic Virasure®	1% (w/v), 10 min (IPNV) 0.5% (w/v), 30 min (ISA)	Reported effective against many fish pathogenic bacteria and viruses www.antecint.co.uk www.virasure.com
Calcium oxide (quicklime)		0.5kg/m ² for 4 weeks	For earth ponds (dried). Dangerous substance
Chlorine dioxide	Cidox	100ppm ClO ₂ , 15 mins	Water treatment for processing plants
Citric acid		2g/l w/v for 30 mins	Clothing
Hydrogen peroxide	Hyperox®	1:100 (1%), 30 minutes	Routine disinfectant for surfaces including concrete, wood and earth.
Sodium hypochlorite		100ppm, 10 mins (a) 1000ppm, 10 mins (b) 1000ppm, 6 hours (c)	a. Boats, cages, tanks, hand nets, harvest equipment b. Processing plant effluent c. Cage nets Leave to inactivate for a few days or neutralise with sodium thiosulphate after 3h
Sodium hydroxide	Biosolve® Plus	1:50 – 1:400, 20 mins	Degreasing & cleaning of well boats, work boats, equipment, processing equipment & utensils. Hot water improves effectiveness.
Bronopol	Pyceze®	50 mg/L for 30 min (eggs) 20 mg/L for 30 min (fish)	Effective control of fungal and bacterial pathogens
UV		1188 J/m ² (IPNV) 33 J/m ² (ISA) 8 J/m ² (VHSv)	Freshwater intake, efficacy compromised by organic loading May be combined with ozone for treating processing effluent
Heat		70°C, 2 hours – IPNV 60°C, 2 mins – ISA	Cage nets, diving gear
Formic acid			Ensiling
Ozone		8mg/l/min, 3 mins (redox 600 – 750mV)	Water intake & effluent Costly and toxic to fish and humans
Peracetic acid, hydrogen peroxide and acetic acid mix	Proxitane® Kickstart Vanodox®	0.2 – 2% (v/v), 10 minutes 1% (IPNV); 0.03% (ISA) 1:300 (general)	Low dose for egg disinfection, higher for cleaning. www.cleantec.com www.quillproductions.co.uk www.evansvanodine.co.uk

Adapted from Fraser, D. I. et al. (2006) Disinfection guide version IV. Practical steps to prevent the introduction and minimise transmission of diseases of fish. Fisheries Research Services Internal Report no. 13/06. Aberdeen, UK

¹The inclusion or exclusion of a particular brand/web site does not indicate an endorsement or a rejection of its use by the Marine Institute.



VET-AQUA INTERNATIONAL



AquaPlan (Grand-Aid Agreement No. PBA/AF/08/003{01}) is carried out under the Sea Change strategy with the support of the Marine Institute and the Marine Research Sub-Programme of the National Development Plan 2007-2013, co-financed under the European Regional Development Fund.

Photographs © Marine Institute