

VEHICLE AND EQUIPMENT DECONTAMINATION

Avian Influenza Response 2024

PURPOSE:

The purpose of this document is to provide guidance to the decontamination of vehicles and equipment to minimize risk of spread of avian influenza virus.

VEHICLE DECONTAMINATION:

PREPARATION:

Drivers should be briefed on safety and biosecurity requirements, and wear PPE appropriately. Cleaning and disinfection should be conducted on a hard surface with drainage to a collection area if possible.

All chemical labels, permits (in particular APVMA PER89609) and safety data sheets must be read prior to chemical use.

Contact the manufacturer for guidance before attempting cleaning and disinfection of sensitive equipment.

Vehicles should be positioned safely and stabilised e.g. apply brakes and wheel chocks.

PERSONAL PROTECTIVE EQUIPMENT FOR DECONTAMINATION:

1. Wet weather gear (top and bottom)
2. sturdy gloves
3. respiratory and eye protection as per safety data sheet
4. goggles must be worn to protect eyes, and
5. Hi-Viz vest.

CLEANING VEHICLES AND RELATED EQUIPMENT:

1. Remove detachable items or parts of the vehicle or equipment, for individual cleaning and disinfection.
2. Dispose of disposable items such as tarps and cardboard containers.
3. Remove excess gross materials (ideally away from the disinfection site) to a site where material can be removed for disposal.
4. Use of a high-pressure hose will assist in removal of visible material.
5. Detergent may be applied at a suitable concentration to aid with suspension of organic matter to allow easy removal from surfaces. Repeat applications may be required to remove soil and other material.
6. Rinse thoroughly to remove detergent and all organic material.
7. Ensure all surfaces are visibly clean before continuing to disinfection.

DISINFECTION OF VEHICLES AND RELATED EQUIPMENT:

External Surfaces:

1. Start at top of the vehicle or equipment and work toward the ground.

2. Moving parts of vehicles or equipment e.g. wheels, tracks, tipper tray, buckets have to be moved during decontamination to access all areas including all surfaces of the tyres.
3. Prepare disinfectant solution according to the label or APVMA PER89609.
4. Apply disinfectant. Ensure ALL areas have been covered with disinfectant, including wheel washes, undercarriage, trays and tippers.
5. Leave for appropriate contact time as per manufacturer's instructions or as outlined in APVMA PER89609. This varies from 10 to 30 minutes depending on the disinfectant and the product used.
6. Rinse disinfectant from the vehicle or equipment with clean water.
7. Other techniques such as heat, or fumigation for tools, equipment and other things may be applied. Ensure exposure requirements are met as required by disease/pest guidelines. For example, internal of vehicle cartage areas that are not amenable to wet wash-down may be fogged using portable fogger with a QUAT biguanide blend.

Internal Surfaces:

1. Vacuum all areas of the cab thoroughly to remove all visible soils. Dispose of these carefully as they may contain infectious particles.
2. Remove rubber mats and clean and disinfect as per external vehicle procedure.
3. Protective covers on internal surfaces e.g. seat covers should be removed and disposed/cleaned. Dry thoroughly before refitting.
4. Clean all hand and foot contact surfaces in vehicle (doors, steering wheel etc) using a suitable detergent (spray, wipe or sponge cloth) to ensure surfaces are visibly clean.
5. Then spray or wipe all surfaces with a suitable disinfectant (e.g. 70% alcohol or Glen 20), particularly hand and foot contact areas.

RECORDS:

1. Record chemical use and update inventory.
2. Record vehicle and equipment decontamination details and movements.

EQUIPMENT DECONTAMINATION

1. All equipment/things taken onsite must be cleaned and disinfected prior to its removal from the property. If items cannot safely be disinfected, they should remain on the property.
2. The appropriate procedure for cleaning and disinfection will be dependent on the nature of the equipment.
3. Prepare disinfectant solution as per the manufacturers label or APVMA PER89609.
3. Disinfectant needs to be left for an appropriate contact time before being rinsed off with water.
 - Small equipment such as tools, vaccination equipment should be cleaned of organic material, then wet with a disinfectant such as Virkon S (APVMA No. 48185) solution. Ensure ALL areas have been covered with disinfectant. Leave for appropriate contact time, before rinsing off with water.
 - Electrical equipment should have visible dirt removed (dry clean) followed by application of an appropriate disinfection. Appropriate examples could include: a wipe down with Virkon S or 70% alcohol, or a light spray with Glen 20 or similar. Disinfectant should be left on for an appropriate contact time (per manufacturers or permit instructions).
 - Some pieces of equipment may need to be dismantled to ensure all areas are cleaned and accessible to disinfection.

- Areas that are difficult to access may need to be disinfected by alternative methods such as fumigation or fogging.

APPENDIX: APVMA permit # 89609 -available here [APVMA Permit No. 89609](#)



Australian Government
**Australian Pesticides and
Veterinary Medicines Authority**

PERMIT TO ALLOW MINOR USE OF A REGISTERED AND UNREGISTERED AGVET

**CHEMICAL PRODUCTS FOR USE AS DISINFECTANTS FOR TREATMENT OF
EQUIPMENT, FABRIC AND SURFACES IN CASE OF AN OUTBREAK OF AVIAN
INFLUENZA, EQUINE INFLUENZA OR SWINE INFLUENZA.**

PERMIT NUMBER – PER89609

This permit is issued to the Permit Holder in response to an application granted by the APVMA under section 112 of the Agvet Codes of the jurisdictions set out below. This permit allows a person, as stipulated below, to use the product in the manner specified in this permit in the designated jurisdictions. This permit also allows the Permit Holder and any person stipulated below to claim that the product can be used in the manner specified in this permit.

THIS PERMIT IS IN FORCE FROM 8 OCTOBER 2020 TO 31 OCTOBER 2025

Permit Holder:

DEPARTMENT OF AGRICULTURE AND WATER RESOURCES
18 Marcus Clarke Street
CANBERRA ACT 2601

Persons who can use the product under this permit:

Owners and employees of affected properties; owners or persons in charge of vehicles or equipment operating in declared areas; employees of the Australian Government and state and territory government Departments of Agriculture, Primary Industries or equivalent. Other personnel as directed by the Chief Veterinary Officer of the jurisdiction in which the disinfectant is to be used.

CONDITIONS OF USE

Products to be used:

Registered products:

VIRKON S THE BROAD SPECTRUM VIRUCIDAL BACTERICIDAL FUNGICIDAL DISINFECTANT [APVMA No. 48185]
PLUS OTHER SIMILAR REGISTERED PRODUCTS

Containing: 494 g/kg POTASSIUM PEROXOMONOSULFATE TRIPLE SALT, 132 g/kg SODIUM DODECYL BENZENE SULFONATE and 15 g/kg SODIUM CHLORIDE as the only active constituents.

VIRKON AQUATIC BROAD SPECTRUM VIRUCIDAL BACTERICIDAL FUNGICIDAL DISINFECTANT [APVMA No. 68503]
PLUS OTHER SIMILAR REGISTERED PRODUCTS

Containing: 497 g/kg POTASSIUM PEROXOMONOSULFATE, and 15 g/kg SODIUM CHLORIDE as the only active constituents.

GEA AG CHLOR DAIRY SANITISER [APVMA No. 84678]

PLUS OTHER SIMILAR REGISTERED PRODUCTS

Containing: 125 g/L available CHLORINE (Cl) present as SODIUM HYPOCHLORITE as the only active constituent.

RUA-KLENZA RKL 400 LOW FOAM DAIRY DETERGENT [APVMA No. 54229]

PLUS OTHER SIMILAR REGISTERED PRODUCTS

Containing: 400g/L SODIUM HYDROXIDE as the only active constituents.

TERMINATOR BROAD SPECTRUM DISINFECTANT [APVMA No. 51744]

PLUS OTHER SIMILAR REGISTERED PRODUCTS

Containing: 150 g/L GLUTARALDEHYDE and 100 g/L QUATERNARY AMMONIUM as the only active constituents.

HY-CLOR AQUATIC PREMIUM CALCIUM HYPOCHLORITE [APVMA No. 84936]

PLUS OTHER SIMILAR REGISTERED PRODUCTS

Containing: 700g/kg available CHLORINE (Cl) present as CALCIUM HYPOCHLORITE as the only active constituent.

VIROCID BROAD SPECTRUM DISINFECTANT [APVMA No. 86445]

PLUS OTHER SIMILAR REGISTERED PRODUCTS

Containing: 107g/L GLUTERALDEHYDE, 78 g/L DIDECYLDIMETHYLAMMONIUMCHLORIDE and 170g/L ALKYLDIMETHYBENZYLAMMONIUMCHLORIDE as the only active constituents.

F10SC VETERINARY DISINFECTANT (APVMA No. 54149)

Containing: 54 g/L BEZALKONIUM CHLORIDE, and 4 g/L POLY (HEXAMETHYLENE BIGUANIDE HYDROCHLORIDE) HYDROCHLORIDE as the only active constituents.

Unregistered products:

CITRIC ACID, Anhydrous powder.

SODIUM CARBONATE, Anhydrous powder.

SODIUM CARBONATE, Washing soda crystals.

RESTRAINT:

DO NOT contaminate wetlands or watercourses with disinfectant or used containers.

Directions for Use**For use as disinfectants for the treatment of equipment, fabric and surfaces in case of an outbreak of Avian Influenza, Equine Influenza or Swine Influenza.**

- For all situations you **MUST** clean with soap or detergent first and then rinse with water to remove organic matter.
- Ensure all wastewater remains on site.
- Ensure best management practices are followed to prevent or minimise odour and water pollution.
- All users must comply with their relevant state and territory environmental legislation.

Disinfectant	Rate	Application	Caution
494 g/kg of potassium peroxomonosulfate triple salt, 132 g/kg of Sodium Dodecyl Benzene Sulfonate, and 15 g/kg of sodium chloride (Virkon S) 497 g/kg Potassium peroxymonosulfate, 49 g/kg sulfamic acid and 15 g/kg Sodium chloride (Virkon Aquatic)	20 g/L	Final dose: 2-3% solution (equivalent to 20 g/L). Soak clothes/small items and equipment for at least 10 minutes. For surface cleaning, apply at rate of 1-1.5 L/m ² . Do not use high pressure sprays. Decontaminate removed organic matter before disposal.	Mildly corrosive for many metals.
Sodium hypochlorite 125 g/L	40 ml/L	Final dose: 0.5% solution (equivalent to 40 ml/L). Soak clothes, footwear and small equipment for 15-30 minutes. For surfaces apply at a rate of 1-1.5 L/m ² and soak for 15 minutes on non-porous surfaces and 30 minutes on porous surfaces. Do not use high pressure sprays.	Toxic for eyes and skin – wear protective clothing, mask and gloves. Corrosive for many metals. Corrosive liquid. Harmful if swallowed. Will damage the eyes, nose, throat and skin. Avoid contact with eyes, skin and clothing. DO NOT inhale vapour. Ensure adequate ventilation when using. When opening the containing and using the product, wear rubber gloves. If product on skin, immediately wash area with soap and water. If product in eyes, immediately wash out with water. Wash hands after use. Use clean containers for dispensing. DO NOT mix with other chemicals. DO NOT mix with different types of chlorinating chemicals. Mix with water only.

Calcium hypochlorite 700 g/kg	7.2 ml/L	0.5% solution concentration (equivalent to 7.2 ml/L) for 10-30 mins. Less stable in warm, sunny conditions above 15°C.	Toxic for eyes and skin – wear protective clothing, mask and gloves. Corrosive for many metals. Corrosive liquid. Harmful if swallowed. Will damage the eyes. Product will irritate the eyes, nose, throat and skin. Avoid contact with eyes, skin and clothing. DO NOT inhale vapour. Ensure adequate ventilation when using. When opening the containing and using the product, wear rubber gloves. If product on skin, immediately wash area with soap and water. If product in eyes, immediately wash out with water. Wash hands after use. Use clean containers for dispensing. DO NOT mix with other chemicals. DO NOT mix with different types of chlorinating chemicals. Mix with water only.
Sodium hydroxide 400 g/L	50 ml/L	Final dose: 2% solution (equivalent 50 ml/L). Always add the product to the water. Soak clothes, footwear and small equipment for at least 10 minutes. For surfaces apply at a rate of 1-1.5 L/m ² and soak for at least 10 minutes. Do not use high pressure sprays.	Do not use in the presence of aluminium or derived alloys. Wear protective (water resistant) clothing, gloves and safety glasses. Corrosive. Product is poisonous if swallowed. The product is alkaline. Avoid contact with eyes, skin and clothing. When preparing and using the wash solution wear elbow-length neoprene gloves and face-shield or goggles. If product or wash solution on skin, immediately wash area with soap and water. Wash hands after use. After each day's use, wash gloves, face-shield or goggles and contaminated clothing.
Sodium Carbonate Anhydrous	40 g/L	4% solution (equivalent to 40 g/L) for 20 mins.	Mildly caustic for eyes and skin. Avoid use on aluminium and similar alloys.
Sodium Carbonate Washing Soda	100 g/L	10% solution (equivalent to 100 g/L) for 30 mins.	

<p>Glutaraldehyde with Quaternary Ammonium Compounds</p> <p>(QACs)</p> <p>(Available as 150 g/L of glutaraldehyde. Therefore 1 part 15% glutaraldehyde to 7.5 parts water = 2% final conc. $1000/7.5=133$ ml/L.)</p>	133 ml/L	<p>2% solution (equivalent to 133 ml/L).</p> <p>Clean equipment with soap or detergent first and rinse with water.</p> <p>Immerse for minimum of 10 mins at 35°C and 20 mins at 25°C.</p> <p>Maintain solution at pH>7. Efficacy may be increased by raising the solution temperature e.g. to 60°C.</p>	Avoid eye and skin contact.
Citric Acid	30 g product/L	<p>3% solution (equivalent to 30 g/L).</p> <p>Non-porous surfaces apply for 15 minutes.</p> <p>Porous surfaces apply for 30 minutes.</p>	Corrosive. Avoid contact with eyes and skin. Wear protective eye wear.
<p>107.0 g/L glutaraldehyde, 78 g/L didecyldimethylammoniumchloride, and 170 g/L alkyldimethylbenzylammoniumchloride</p> <p>(Viroid)</p>	10 ml/L	<p>Final dilution 1%</p> <p>Soak clothes/small items and equipment for at least 10 minutes.</p> <p>For surface cleaning, apply at rate of 1-1.5 L/m². Do not use high pressure sprays.</p>	<p>Poisonous if swallowed.</p> <p>Harmful to eyes and skin.</p> <p>Corrosive, attacks eyes. Will irritate nose, throat and skin.</p> <p>Avoid contact with eyes and skin. Do not inhale vapour or spray.</p> <p>DO NOT contact treated surfaces for 30 minutes after treatment.</p> <p>Ensure adequate ventilation in areas where product is used.</p> <p>A re-entry time of 2 hours after treatment is recommended.</p> <p>Personal protective equipment (PVC apron, cotton overalls, elbow-length chemical resistant gloves, goggles, impervious footwear and half-face respirator with organic vapour/gas cartridge) must be worn while removing clothing, small items and equipment from the disinfectant solution.</p> <p>Clothing should be washed, and other equipment rinsed thoroughly before using to ensure there is no remaining disinfectant.</p> <p>All directions for use on the product label (such as ensuring surfaces are clean prior to disinfection) must be followed.</p>

54 g/L benzalkonium chloride, and 4 g/L poly(hexamethylene biguanide hydrochloride) hydrochloride (F10SC Veterinary Disinfectant)	2 mL/1 L (1:500)	For disinfection of hard surfaces, equipment and air spaces; follow label directions. Apply for a contact time of 10 minutes.	Refer to product label for First Aid and Safety Directions. The washing solution must not be allowed to enter any waterways. The washing area should have a concrete floor and be surrounded by a raised bund to contain any spillage and/or run-off solution.
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NOTE: Glutaraldehyde and Quaternary Ammonium Compounds are only available as a combined product. The final concentration is based off the Glutaraldehyde % or ppm.

NOTE: EFFICACY of some of the products and proposed uses under this permit has not been thoroughly determined however efficacy is reasonably expected due to the broad spectrum nature of the products.

Safety Directions and Personal Protective Equipment

- Follow label First aid instructions as listed on the product label for registered products. In some cases, the safety directions listed on the label are not sufficiently protective, due to the higher concentrations to be used. Additional Safety Directions are specified in the 'caution' column above.
- For industrial grade chemicals (e.g. citric acid and sodium carbonate) follow *Safety Directions* and First aid instructions as listed on the label and the *Safety Data Sheet* issued by the supplier/manufacturer of the product.
- As a minimum, when opening product containers, preparing spray solutions and during use wear elbow length butyl rubber or PVC gloves, cotton overalls buttoned to the neck and wrist, washable hat, chemical resistant boots and goggles/face mask.
- If products or prepared solutions come into contact with skin, immediately wash the area with soap & water.
- If products or prepared solutions come into contact with eyes, immediately wash it out with water.

Jurisdiction:

All States and Territories.

Additional Conditions:

This permit allows for the use of a product in a manner specified on the permit. Persons who wish to prepare for use and/or use products for the purposes specified in this permit must read, or have read to them, the details and conditions of this permit. Unless otherwise stated, the use of the product must be in accordance with the product label.

The holder of the permit must notify the APVMA of new information, including relevant information in accordance with section 161 of the Schedule to the *Agricultural and Veterinary Chemicals Code Act 1994*, in accordance with the obligation imposed by that section.

Issued by the Australian Pesticides and Veterinary Medicines Authority

Note: 04/08/2023 – Permit updated to add a new product, F10SC Veterinary Disinfectant. Permit issued as Version 2.

PER89609

Version 2

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