Cleaning and Disinfection Protocol for Fungi, Yeast and Molds

This document has been developed in accordance with current applicable infection control and biosecurity guidelines. It is intended for use as a guideline only. At no time should this document replace existing documents established by the facility unless written permission has been obtained from the responsible facility manager.

PREFACE

Fungi is the name given to a strange group of living things including mushrooms, toadstools, molds and thousands of other weird and wonderful things. Fungi are neither plant nor animal, but have some characteristics of each. They cannot move about like an animal, do consume organic matter, have no chlorophyll as do plants, and cannot manufacture their own energy. They have a true nucleus in their cells and are able to sexually reproduce by combining like strains of nucleus. They can also reproduce by spores similar to some of the more primitive plants. Generally, the majority of common fungi, yeasts and molds are not a concern to someone who is healthy. However, there are some individuals, especially those who have existing health concerns, who may be sensitive to exposure of these organisms.

The following table provides examples of pathogenic fungi, yeasts and molds for birds, mammals and primates.

<table>
<thead>
<tr>
<th>Aspergillus brasiliensis</th>
<th>Microsporum canis</th>
<th>Pneumocystis murina</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspergillus fumigatus</td>
<td>Microsporum gypseum</td>
<td>Trichophyton equinum</td>
</tr>
<tr>
<td>Candida albicans</td>
<td>Pneumocystis carinii</td>
<td>Trichophyton mentagrophytes</td>
</tr>
<tr>
<td>Encephalitozoon cuniculi (ECUN)</td>
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</tr>
</tbody>
</table>

PREPARATION

Transmission of fungi, yeast and molds is generally acquired from spores found in soil or vegetation and either ingested or inhaled. Animal-to-Animal transmission is not of general concern with fungi with the exception of organisms that cause ringworm where the fungi are found on the skin and can be
transmitted via direct contact. Appropriate personal protection should be taken for those responsible for the decontamination of animal premises. Appropriate biosecurity practices should be applied, including limiting the amount of aerosols generated and disturbance to dust / soil in the area to be cleaned and disinfected.

PROTECTIVE BARRIERS

Appropriate personal protection should be taken for those responsible for the decontamination of the area and may include the following:

1. Disposable gloves. Gloves should be changed as required (when torn, when hands become wet inside the glove or when moving between animal housing areas)
2. Household gloves can be worn, but they must be discarded when the cleaning is complete.
3. Protective Eye wear (goggles, face shield or mask with eye protection) as appropriate based on task to be completed
4. Masks (surgical or procedural masks sufficient) as needed
5. Gowns as needed

PRODUCTS

All Accelerated Hydrogen Peroxide® (AHP®) disinfectant-cleaner products have been approved for sale as a disinfectant by either Health Canada or the US Environmental Protection Agency (EPA) and carry either a DIN or EPA registration number indicating their approval for sale as a disinfectant.

AHP® disinfectants are registered as a Hospital Grade Disinfectant which denotes that the products have been proven efficacious against the three main surrogate bacteria designated both Health Canada and the EPA for Bactericidal activity; Staphylococcus aureus, Pseudomonas aeruginosa and Salmonella enterica (formerly known as Salmonella choleraesuis). AHP® disinfectants have also been tested against a wide range of pathogenic fungi, yeasts and molds including Microsporum, Trichophyton, Candida and Aspergillus with contacts times of 30 seconds to 10 minutes depending on the formulation and/or dilution used.

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Market</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevail™</td>
<td>Companion and Farm Animal</td>
<td>Canada</td>
</tr>
<tr>
<td>Rescue™</td>
<td>Companion Animal</td>
<td>USA</td>
</tr>
<tr>
<td>Intervention™</td>
<td>Farm Animal</td>
<td>USA</td>
</tr>
</tbody>
</table>
RECOMMENDED PROCEDURES FOR CLEANING AND DISINFECTION OF ANIMAL CARE EQUIPMENT

Contaminated animal care equipment should be clearly identified and kept separate from clean equipment. Animal care equipment include: blood pressure cuffs, stethoscopes, thermometers, handling or restraining equipment, feeding and watering appliances, etc.

1. Use the AHP® solution to remove soil and body materials (e.g. blood, organic soils) from heavily soiled items.
2. Apply AHP® solution evenly over surface ensuring that all surfaces are thoroughly wet. Items that can be immersed may be placed into a container of AHP® solution.
3. Allow the items to remain in contact with the AHP® solution for the appropriate contact time (refer to the label of the AHP solution being used).
4. After the contact time has been achieved remove any excess solution with a clean cloth, sponge or paper towel.
5. Items that have been immersed should be removed from the solution after the appropriate contact time, rinsed with potable water and allowed to air dry.

RECOMMENDED PROCEDURES FOR CLEANING AND DISINFECTION OF KENNELS AND CAGES:

The AHP® technology is designed to be both an excellent cleaner and effective disinfectant and can be used in place of a degreaser or detergent.

1. Remove all animals and feed from the area to be cleaned and disinfected.
2. Remove all litter and fecal matter from floors, walls and surfaces of kennels or cages.
3. Empty or cover all feeding and watering appliances.
4. Thoroughly clean all surfaces with soap or a detergent or a diluted solution of AHP® and rinse with water.
5. Apply the AHP® solution to floors, walls and other surfaces of the kennels or cages ensuring the surfaces are thoroughly wet and remain wet for the appropriate contact time.
6. Allow surfaces to dry before reintroducing animals back into the kennels or cages.
7. Clean and disinfect all equipment used to remove litter and fecal matter such as forks, shovels and scrapers.
RECOMMENDED PROCEDURES FOR CLEANING AND DISINFECTION OF ANIMAL HOUSING FACILITIES:

The AHP® technology is designed to be both an excellent cleaner and effective disinfectant and can be used in place of a degreaser or detergent.

1. Remove all animals and feed from the area to be cleaned and disinfected.
2. Remove all litter, bedding and manure from floors, walls and surfaces of cages, stalls or other animal handling areas.
3. Empty or cover all feeding and watering appliances.
4. Thoroughly clean all surfaces with soap or a detergent or a diluted solution of AHP® and rinse with water.
5. Apply the AHP® solution to floors, walls and other surfaces of the cages, stalls or other animal handling areas ensuring the surfaces are thoroughly wet and allow to remain wet for the appropriate contact time.
6. Allow surfaces to dry before reintroducing animals back into the kennels or cages.
7. Clean and disinfect all equipment used to remove litter, bedding and manure such as forks, shovels and scrapers.