



Document Type / Category Instructions For Use (IFU)

Document Number, Issue, Title IFU 019 Rev01 – Treatment of Heat Exchange Coils with Concentrate

1. PURPOSE

This Treatment Procedure outlines the process to effectively treat Heat Exchange Coils to provide a barrier that protects the surface of the coils for a period of up to 12 months.

- Provided the process is completed as outlined and undertaken by an AerisGUARD Certified Applicator, Aeris will warrant the coating of the coil to last for a period of 12 months.

This IFU covers the steps and actions that need to be taken in the use of AerisGUARD Coil Treatment Concentrate products.

All Aeris Environmental personnel, sub-contractors and certified applicators are expected to take an active role in establishing, implementing and maintaining this Procedure in line with this IFU according to their role and responsibility.

The purpose of acting in accordance with this IFU is to have an uninterrupted, smooth process that ensures that correct procedure and use of the products are followed. This IFU shall also be part of Aeris' continuous improvement initiative.

2. PROCEDURE DESCRIPTION AND PROCESS FLOW

The treatment of Heat Exchange Coils with AerisGUARD Coil Treatment Concentrate should be conducted by a Certified AerisGUARD Applicator (See Aeris Website) in accordance with Aeris Environmental Recommendation, this IFU, your work order and / or the job specification. This process should follow the application of AerisGUARD Multi-Enzyme Coil Cleaner and the process outlined in Aeris Environmental **IFU 001 - Cleaning, Preparation and Removal of Organic and Inorganic Debris from Heat Exchange Coils.**

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The steps in this procedure are as follows:

1. Preparation
 - a. Product Handling & Packaging
 - b. Apparatus & Equipment Required
 - c. Product Dilution and Application Rates
 - d. PPE and OH&S Requirements
2. Setup
3. Application Process
4. Cleanup Process

3. PROCEDURE

1. Preparation

a. Product Handling & Packaging

Applicators should consult the product Safety Data Sheet (SDS) prior to use and handling.

AERISGUARD COIL TREATMENT CONCENTRATE is the same product as the AerisGUARD Coil Treatment only in concentrate form for ease of shipping as it is not Dangerous Goods.

- ADD 3.75 LITRES (0.99 US Gal) OF ETHANOL / METHYLATED SPIRITS AND
- SHAKE BOTTLE WELL TO COMBINE INGREDIENTS.
- ONCE MIXED THE PRODUCT IS READY FOR USE.

Always store the product out of direct sunlight and not exposed to hot environments for extended periods of time.

b. Apparatus & Equipment Required

Tarpaulin/Plastic Sheeting

Clamps/Tape

Spray gun with fine mist

Power leads

(used to apply bulk product)

Residual Current Device (RCD)

Occy-straps

Ladder

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c. Product Dilution and Application Rates

The AerisGUARD Coil Treatment concentrate is supplied 1.25 L (0.33 US Gal) Net content in a 5 L (1.32 US Gal) bottle to be diluted with 3.75 L (1 US Gal) of ethanol or methylated spirit before use as per label instruction and shake.

The coil treatment solutions are also supplied in ready to use forms:

- - 200g (7.05 oz) aerosol cans -designed for quick and simple application on coils such as indoor high wall evaporator coils and the maximum coil depth to be treated with this application is 100mm (4 inches). Coils thicker than this will require an airless / air assisted mechanical application process utilising the 5L (1.32 US Gal) bulk product. (see IFU 018 for application)
- 5 L (1.32 US Gal) ready to use bulk product (see IFU 002 for application)

The application rate of the diluted Coil Treatment 550mL/m² (1.73 fl oz/sq ft) of Coil face is based on 12 fins/inch and 100mm (4 inches) depth).

275mL (9.3 fl oz) of solution should be applied to each side of the 1m² (10.76 sq ft) coil face.

d. PPE and OH&S Requirements

- Gloves (*hi density rubber are recommended*)
- full or half face masks with filters rated for pesticides and solvents,
- safety goggles (*Wraparound Clear are recommended*)
- full body waterproof suit with hood (*Disposable suit is recommended to keep clean*)
- type 1 heavy duty safety boots should always be worn.

Note* Other safety equipment may be required. OH&S requirements can vary geographically or by project nature.

2. Setup

- Ensure that the unit is “off line / isolated from operation” prior to and during the entire Application process. This must be done by an appropriately certified person and may require arrangement with the engineering staff at the site if necessary.
- Ensure that equipment is protected by a (RCD) Residual Current Device to protect the user from electrical shock.
- Ensure equipment being used is in good working order.
- Other parts of the system may need to be covered, e.g. fan motor and sensors located near the area to be treated.
- All traces of dirt must be removed before leaving site.

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3. Application process

a. Prepare the coil for application

- Prior to the application of the Aeris Coil Treatment the coil should be prepared following the process outlined in Aeris Environmental **IFU 001 Cleaning, Preparation and Removal of Organic and Inorganic Debris from Heat Exchange Coils**. This step safely cleans & removes debris from air cooled coil.

b. Application of the diluted AerisGUARD Coil Treatment

1. ensure the unit is isolated

All personal safety equipment must be worn for the remainder of the procedure. Ensure there are no ignition sources within 30m/100 ft of the area of application.

2. Apply the diluted Coil Treatment

- To apply the bulk ready to use Coil Treatment solution (or the diluted Coil Treatment Concentrate), use pressure airless spray gun
 - Decant required product into tank / chamber of airless gun
 - Set nozzle on gun to the finest mist / spray setting possible
 - ENSURE area is WELL ventilated
 - Spray treatment on to coil area passing over the coil top to bottom and left to right then bottom to top right to left
 - Ensuring a light coverage of 550mL/m² (1.73 fl oz/ sq ft) of coil face 100mm (4 inches) deep
- To apply the Aerosol Treatment
 - ENSURE area is WELL ventilated
 - Hold the can 20cm (8 inches) from the face of the coil
 - Spray treatment on to coil area passing over the coil top to bottom and left to right then bottom to top right to left
 - Ensuring a light coverage of 550mL/m² (1.73 fl oz/ sq ft) of coil face 100mm (4 inches) deep
- Wherever possible access and apply Treatment TO BOTH SIDES of the coil to ensure best results and necessary for the 12 month Aeris Environmental warranty. (See Aeris Website for details)
- Leave AerisGUARD Coil Treatment to cure for the required time prior to returning the machine to active operation:

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- BULK READY TO USE (DILUTED SOLUTION) APPLICATION
 - requires minimum of 20 – 30 mins curing time, ensure that the surrounding area is well-ventilated and no alcohol odour is present prior to turning the unit (fans) back on.
- AEROSOL APPLICATION
 - requires 10-15 mins curing time, ensure that the surrounding area is well ventilated and no alcohol odour is present prior to turning the unit (fans) back on.

*** Both forms of application leave a coating that lasts for up to 12 months.*

- To clean Spray Equipment flush with water immediately after use until equipment is clean. If Treatment has started to dry use Ethanol/Methylated Spirits to flush. Do NOT leave the equipment to dry without flushing as it will seize up.

3. Clean Up Process

- Ensure that all equipment is cleaned as per the manufacturer's recommendation, packed up and removed from the area.
- Leave the worksite as you found it.
- Remove and dispose of all empty product containers.
- Remove all rubbish you have taken on site / including any plastic sheeting blocking ductwork.
- Return the machine to correct operational function.

4. Warranty Reporting

- The 12 Month Performance warranty can only be activated by a Certified AerisGUARD Applicator
 - To activate the warranty, the applicator MUST
 - Complete and attach the certification sticker to the asset treated
 - Scan the QR code on the sticker and register and submit the asset and job details.
 - a. Site name
 - b. Unit ID number

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- c. Treatment applied
- d. Applicator contact details
- e. Pre application Picture
- f. Post application Picture
- g. Picture of the certification sticker

- A certificate of certification can be requested for the client for an asset or whole building if required.
- Once the warranty is activated the applicator who submitted the original warranty form will be notified in 11 calendar months that the asset requires reapplication to maintain the warranty. This process must be completed every 12 months. After the initial cleaning process, the subsequent clean will be less labour and time intensive.

Recommended additional process

It is highly recommended that the entire Unit be cleaned and treated with AerisGUARD Surface Cleaner & Treatment (IFU 003 and 004) products as well as the use of Condensate Drain Pan Tablets this will provide long term benefits:

- Prevention from reaccumulation
- Sustained and long-term coil efficiency
- Improved machine operational performance
- Superior indoor air quality
- 12-month Performance Warranty
- Annual reminder to maintain warranty

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