



Document Type / Category Instructions For Use (IFU)

Document Number, Issue, Title IFU 010, Rev01 - Cleaning Ice Cream Machines

1. SCOPE AND PURPOSE

THE PURPOSE OF THIS PROCEDURE IS TO DIGEST AND DETACH ORGANIC DEPOSITS FROM ICE CREAM MACHINES.

- It is well known that the presence of organic debris makes it a lot harder to clean ice cream machines.
- It has been clearly demonstrated that high levels of organic debris affect the taste of ice cream.
- Aeris has demonstrated in extensive laboratory and field trials that the use of a combination of the appropriate enzymes enables the complete digestion of all organic debris deposited on the surfaces of ice cream machines.
- This procedure assumes that the ice cream machine has an appropriate cleaning / maintenance schedule that is followed.

This IFU covers the steps and actions that need to be followed when using AerisGUARD Multi-Enzyme Ice Cream Machine Cleaner.

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 process and use of the products are followed. This IFU shall also be part of Aeris' continuous improvement initiative.

PRINCIPLE OF METHOD

Regular application of AerisGUARD Multi-Enzyme Ice Cream Machine Cleaner will assure removal of organic debris and scale, and achieve a cleaner machine which in turn produces cleaner ice cream.

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2. PROCEDURE DESCRIPTION AND PROCESS FLOW

All works to be carried out with the product should be performed in compliance with relevant national Health, Safety and Environmental standards and regulations. Before commencing use of the product consult this IFU, the SDS, your work order and / or the job specification.

If the warnings and instructions are not fully understood or compliance with all safety instructions is not possible contact the manufacturer for clarification, do not use the product.

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. Clean up Process

3. PROCEDURE

1. Preparation
 - a. Product Handling & Packaging

Consult the product Safety Data Sheet (SDS) prior to use.

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

The product is available in 1L units & has a shelf life of 3 years.

- b. Apparatus & Equipment Required

Measuring vessel

Large bucket for soaking parts

Large container

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c. Product Dilution and Application Rates

- The dilution rate of AerisGUARD Multi-Enzyme Ice Cream Machine Cleaner is 20mL of product per litre (1 per 50 fl oz) of water needed to fill the system.

d. PPE and OH&S Requirements

- Should any AerisGUARD Multi-Enzyme Ice Cream Machine Cleaner solution splash onto the skin or clothing, it should be washed off promptly with water.
- It is recommended that gloves, safety goggles and a respiratory mask are worn when handling AerisGUARD Multi-Enzyme Ice Cream Machine Cleaner.
- Follow all OSHA or equivalent standards regarding personal protection and site specific requirements.

2. Setup

Before addition of the AerisGUARD Multi-Enzyme Ice Cream Machine Cleaner

- Empty machine of all contents then wipe excess ice cream from the holding tank and barrel shaft.
- Dismantle all removable parts (faceplate, barrel etc.) and place in a bucket of hot water (45-70°C/113-158°F) taking care to remove stopper valve and O-rings. Give the inside of the stopper valve a wipe using paper, cloth or towel.
- Once these parts have been rinsed and stopper wiped, replace them back onto machine ready to run Cleaner. (At this point any parts needing to be lubed prior to replacing should be lubed.)
- Place a few litres (approx.5L/1.3 US gal) of hot water (45-70°C/113-158°F) into the holding tank and circulate for one minute. Draw half this amount from the tank and circulate for another minute. Empty all water from tank.

3. Application Process

Addition of the Enzymatic Cleaner

- Using your measuring jug and large bucket mix your Cleaning solution at the dilution rate of 20mL to each litre of water (1 fl oz to each 50 fl oz). **The water temperature for the cleaning cycle must be between (45-70°C/113-158°F).**
- If your holding tank is 10L/2.6 gal then add approx. 9L/2.4 gal of water to your large bucket into which you then add the Ice Cream Machine Cleaner. In this case 180ml/6.1 fl oz of Cleaner would be added.
- This level of Cleaner in the holding tank is dependent on how full the holding tank has been kept. For safety reasons it is suggested that this tank is near full for the cleaning cycle so all deposits new and old are below water level and therefore cleaned.
- Once the machine has been filled with the Cleaner solution it should be turned on to

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circulate. After 5 minutes circulating draw approx. 5L/1.3 gal of solution into your measuring jug or bucket and then replace this back into the holding tank. Continue to circulate.

- e. After 4 minutes with solution circulating draw approx. 5L/1.3 gal of solution into your measuring jug or bucket and then replace this back into the holding tank. Continue to circulate.
- f. After 4 mins circulating draw 5L/1.3 gal of solution into your measuring jug or bucket and then replace this back into the holding tank. Continue to circulate.
- g. The solution should circulate for 15 minutes total and solution drawn and replaced three times during the Cleaning process. Once complete empty solution from machine.

4. Clean Up Process

- a. Fill measuring jug with a few litres (3-4L/0.8-1 gal) warm water (45-70°C/113-158°F) and flush through machine. This water is discarded.
- b. As a final rinse, repeat step above with another (3-4L/0.8-1 gal) warm water (45-70°C/113-158°F) and flush through machine.
- c. Wipe any pooled water from machine before returning it to operation.
- d. Ensure no trace of work or cleaning related debris remains on completion of the process.
- e. Fill out any necessary paperwork as to scheduled cleaning / maintenance.
- f. Discard all diluted cleaning solution as this cannot be re-used once it has been diluted.

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