



CHEMICAL CO.



Hydrite Sales & Service Representative
Darrell Rice
Chemtrec Emergency # - (800) 424-9300

Old Chatham Creamery - Groton NY

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Prepared By: Ethan Ott		

Area to be Cleaned: Equipment to be Cleaned: Cleaning Frequency: Cleaning Method:	Yogurt NOVA Fillers Daily Manual / CIP	Personnel Assigned or Alternative: In-House Sanitation Staff, or Processor
Products	Tools & Equipment	Required Safety Equipment
Enrich 299 Cir Kleen MPA Hydroxysan + 494	Refer to Bucket and Brush Color Program	Face Shield Chemical Resistant Gloves Chemical Resistant Apron Chemical Resistant Boots
ALWAYS WEAR PROPER SAFETY EQUIPMENT WHEN WORKING WITH CHEMICALS OR HOT WATER!! ALWAYS FOLLOW REQUIRED 'LOCKOUT/TAGOUT' PROCEDURES!!		
FOR CHEMICAL EMERGENCY QUESTIONS CALL 1-800-424-9300		

Step Name	Product	Concentration	Test Kit	Temp.	Time
Manual Clean	Enrich 299	2.0 – 4.0 oz/gal	Enrich # 299 (20 - 40 drops)	Ambient - 125°F	Foam
Caustic CIP	Cir Kleen	0.6 – 1.0 oz/gal	Cir Kleen (6 – 10 drops)	Ambient - 140°F	30 Min
Acid CIP	MPA #168	0.4 – 1.0 oz/gal	MPA #168 (4 – 10 drops)	Ambient - 140°F	20 Min
Sanitize	Hydroxysan + 494	0.4 – 0.6 oz/gal	Hydroxysan + 494 (9-15) drops	Ambient	5 Min



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Work Instruction

I. DRY CLEAN –

- a. Make sure all foreign material is picked up and cleaned up around the immediate area. Place trash in the appropriate container and dispose
- b. Lock out and tag out as needed. Cover all electrical panels

II. CIP PREP –

- a. If needed, prepare a fresh manual cleaning solution at ambient - 125°F of **Enrich # 299 at 2-4oz/gal (10-12 oz for a half bucket and 20-25 oz for a full bucket)**. Have the appropriate clean brushes available.
- b. Remove spare parts, including the fruit hopper and hoses, and manually clean with Enrich / place in the COP tank.
- c. Scrub parts using the correct bucket and brush, following the plant's color code program.
- d. Rinse with cold water ensuring all chemical solution is removed.

III. CIP – Pre-rinse

- a. Put the system in CIP



- b. Thoroughly prerinse the large vat using warm, not hot water and the hose until all traces of product are gone. Remove top protection covers and manually clean



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- c. Put 100 gallons of warm water into the large vat and use this to pre-rinse the fillers. Do not connect for CIP, just open the valve, turn on the pump and send the water to the unit(s), and to the drain. When all traces of the product are gone, shut off the pump.



IV. CIP - Caustic wash.

- a. Once all connections are made for CIP, add 100 gallons with hot water, up to 140F. Add 60oz of Cir Kleen. (fill to the level shown in the picture).



Fill level in the tank



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- b. Titrate solution ensuring Cir Kleen concentration is between 0.6 – 1 Oz/Gal. If concentration is low, add more chemical and titrate again. If concentration is high, drain some solution, dilute with water and titrate again.
- c. Record results on CIP record.
- d. Circulate the caustic solution through the whole loop for at least 30 minutes
- e. When time has elapsed, drain the caustic solution and begin rinse cycle with fresh water, ensure that all lines are properly pushed/rinsed with water.
- f. Ensure Caustic Post rinse removes alkalinity form the system. pH should be neutral after post rinse.
- g. Once rinse water is neutral, turn off the pump, wait for spraying to stop, and open the manhole to visually inspect all surfaces for cleanliness.
- h. Manually rinse all ports, covers, and caps that are not reached by the spray ball
- i. Foam the exterior of the filler with Enrich and clean thoroughly with brushes
- j. Rinse thoroughly

V. CIP – Acid Wash (As needed / 1x weekly)

- a. Fill the tank again to 100gal at the level shown above with hot water, up to 140F. Add 40oz of MPA.
- b. Titrate solution ensuring MPA concentration is between 0.4 – 1 Oz/Gal. If concentration is high, drain some solution, dilute with water and titrate again.
- c. Record results on CIP record.
- d. When time has elapsed, drain the caustic solution and begin rinse cycle with fresh water, ensure that all lines are properly pushed/rinsed with water
- e. Ensure Acid Post rinse removes acidity form the system. pH should be neutral after post rinse.
- f. Once rinse water is neutral, turn off the pump, wait for spraying to stop, and open the manhole to visually inspect all surfaces for cleanliness.



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- g. Manually rinse all ports, covers, and caps that are not reached by the spray ball

VI. **CIP – Sanitize**

- a. Fill the tank again to 100gal at the level shown above with ambient water. Add 32-35oz of Hydroxysan + 494
- b. During the sanitize step, check concentration of Hydroxysan + 494, ensuring concentration is between the legal no rinse sanitize range of 77 - 500 ppm.
- c. If concentration is low, add more chemical and titrate again. If concentration is high, drain some solution, dilute with water and titrate again.
- d. Manually rinse all ports, covers, and caps that are not reached by the spray ball

VII. **ASSEMBLE –**

- a. Visually inspect all parts for wear and notify supervisor of any concerns.
- b. Reconnect for production.

- VIII. **PERFORM PRE-OP INSPECTION** –Visually inspect the equipment to ensure an effective CIP. Monitor for product residue or mineral build up. Hand clean if needed with the appropriate chemicals.

All equipment is subject to inspection, internal or external. Notify supervisor with needed corrective actions. Routine formal inspection should be conducted to ensure proper cleaning and follow up.