



# OPTI-THERM<sup>®</sup> SMALL SYSTEM CLEANER

## CLEANING FLUID FOR HOT OIL TEMPERATURE CONTROL UNITS

OPTI-THERM<sup>®</sup> Small System Cleaner is expressly formulated to dissolve and suspend the sludge and carbon lumps frequently produced in hot oil temperature control units where petroleum or glycol-based heat transfer fluids have been used. The fluid is a multi-component synergistic that is compatible with any mineral oil based thermal fluid, and many of the synthetic fluids as well.

OPTI-THERM<sup>®</sup> Small System Cleaner can be reused after solid matter drops to the bottom of the container or is filtered out. When the fluid is finally spent, the fluid can be combined with other common part-washing liquids and disposed of conventionally.



### - FEATURES -

- Replace your system's fluid with Small System Cleaner, then after it's clean, replace with heat transfer fluid.
- Dissolves carbon lumps and keeps them in suspension.
- Works cold or warm. Max. temperature 150°F.
- Compatible with any mineral oil based fluid.
- Re-use of fluid is recommended.

PART NO.	CONTAINER SIZE	QUANTITY PRICES	
		1	2+
SC0705	5 GAL.	\$195.00 ea.	\$180.00 ea.
SC0755	55 GAL.	\$1610.00 ea.	\$1550.00 ea.

Approx. Shipping Weights: 5 Gal. = 40 lbs. / 55 Gal. = 440 lbs.

### Instructions for Fluid Use

1. Drain existing fluid while warm if possible.
2. Replace drain plug with ball valve.
3. Fill system with Small System Cleaner so that reservoir tank has approximately 1" to 2" of fluid in bottom, or enough to start pump.
4. Circulate cold for 3 to 4 hours. If reservoir needs to be cleaned, run discharge hose into tank through vent or open vent to agitate fluid in tank.

**NOTE: Do not circulate through expansion tank while system is hot.**

5. Let system soak overnight.
6. Start system up and circulate from 1 to 4 hours. Fluid works faster when warm. Heat to maximum of 150°F if possible.
7. Turn off heat and allow fluid to cool with pump running.
8. When fluid temperature reaches ambient, begin to drain fluid while pump is operating. Shut off pump when pressure begins to fluctuate. Continue draining system.

### - IMPORTANT -

9. Refill system with OPTI-THERM<sup>®</sup> PM or XR Heat Transfer Fluid or any compatible mineral oil based product. Set temperature at 150°F and circulate for 1-2 hours. Shut down & drain immediately.
10. Refill system with OPTI-THERM<sup>®</sup> PM or XR Heat Transfer Fluid and put unit back into service.



# OPTI-THERM<sup>®</sup> LARGE SYSTEM CLEANER

## FOR CLEANING LARGE SYSTEMS - ON THE FLY

OPTI-THERM<sup>®</sup> Large System Cleaner is specifically formulated to dissolve and suspend sludge deposits that can reduce flow, and thus heat transfer, in larger continuously-operated systems. Compatible with mineral oil based fluids, it operates while the system does, eliminating the downtime involved with flushing fluids or chemical cleaning agents.



### - FEATURES -

- Add to your existing fluid and clean while your system runs.
- Clean any system with minimal downtime
- Dissolves sludge as system runs
- Restores system performance
- Compatible with any mineral-oil based fluid
- Max. recommended use temperature 510°F

### How Much Large System Cleaner To Use

Time cleaner will remain in your system:

3 to 4 weeks .....	15%
4 to 8 weeks .....	10%
8 to 12 weeks .....	5%

Approx. Shipping Weights:  
5 Gal. = 40 lbs.  
55 Gal. = 440 lbs.

PART NO.	CONTAINER SIZE	QUANTITY PRICES	
		1	2+
LC0801	1 GAL.	\$60.00 ea.	\$55.00 ea.
LC0805	5 GAL.	\$250.00 ea.	\$230.00 ea.
LC0855	55 GAL.	\$2050.00 ea.	\$1950.00 ea.

### Instructions for Fluid Use

1. Install a 60 mesh screen in the Y-strainer to catch any large lumps that break loose.
2. Drain the equivalent amount of fluid from the system before adding the Large System Cleaner.
3. Add Large System Cleaner slowly using a positive displacement transfer pump and hoses of appropriate temperature range. Either pump the cleaner fluid directly into system (near pump suction if possible) or pump into expansion tank and drain into system.
4. Allow cleaner to circulate until all loops are at operating temperature. Run system normally. Minimum

- suggested time is 3 weeks, maximum time is 1 year.
5. Clean Y-strainer screen as necessary.
  6. To drain cleaner and fluid, shut off heater but allow pump to circulate until system temperature is cool enough to handle (180 to 200°F). Do not turn off pump and allow system to cool as this will permit particles to settle out and contaminate the new fluid.
  7. Drain system with pump running. Continue to run pump until it begins to cavitate or the low pressure switch shuts it off.

8. Continue draining as quickly as possible. Any delay will allow sludge to settle out in the piping where it will contaminate the new fluid.
9. Fill system with OPTI-THERM<sup>®</sup> PM or XR Heat Transfer Fluid and restart system.
10. One week after startup, send sample to fluid supplier for testing.

**NOTE: The cleaner can be used to clean the expansion tank if the heater is equipped with a warm-up valve. Make sure the tank is purged with nitrogen while the warm-up valve is open.**



## PLASTIC PROCESS EQUIPMENT, INC.

8303 CORPORATE PARK DRIVE  
MACEDONIA, OHIO 44056-2300  
216-367-7000 • FAX: 216-367-7022  
TOLL FREE: 800-321-0562

6385 MONTESSOURI STREET  
LAS VEGAS, NEVADA 89113-1186  
702-433-6385 • FAX: 702-433-6388  
TOLL FREE: 800-258-8877

www.ppe.com  
e-mail: sales@ppe.com

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Order Fax: 800-223-8305