



Heat Transfer Fluid Diagnostic Checklist

10 Signs Your Fluid Needs Attention

Walk through each item below during your next system inspection. Check any that apply. If you check 3 or more, your fluid needs professional evaluation. Print this and bring it to your system.

- 1. Fluid color has darkened significantly**
Compare a sample against fresh fluid. Darkening indicates thermal cracking or oxidation byproducts.
- 2. System requires more frequent top-offs**
Unexpected fluid loss points to leaks, excessive low-boiler venting, or thermal breakdown.
- 3. Heater outlet temps rising to maintain process temp**
Degraded fluid transfers heat less efficiently, increasing energy costs and film temperatures.
- 4. Unusual odor near expansion tank or vents**
Off-gassing from thermal cracking produces acrid smells — signals active decomposition.
- 5. Pump cavitation or unusual noise**
Low-boilers from breakdown lower flash point and cause vapor pockets and cavitation damage.
- 6. Higher pressure drop across the system**
High-boiler buildup increases viscosity. Sludge and carbon deposits narrow flow passages.
- 7. Carbon or sludge on heater tubes / strainers**
Visible deposits indicate advanced degradation. Fouled surfaces accelerate further breakdown.
- 8. 12+ months since last fluid analysis**
Unexpected fluid loss points to leaks, excessive low-boiler venting, or thermal breakdown.
- 9. You don't know your fluid's total acid number (TAN)**
Rising TAN is the earliest measurable indicator of oxidation and thermal stress.
- 10. Fluid in service 5+ years without treatment**
Even stable fluids accumulate degradation products. Distillation can restore fluid to spec.

0-2 checked

System likely in good shape.

3-5 checked

Schedule a fluid analysis.

6+ checked

Needs immediate attention.

FREE FLUID ANALYSIS FROM CHEM GROUP

As part of ThermaGuard Lifecycle Care™, we offer complimentary fluid sampling and analysis. Request your free sample kit at chemgroupus.com or call (800) 489-2306.