

THERMAL CHARGE®

HEAT TRANSFER FLUID

EGHD

Inhibited Ethylene Glycol-Based Heat Transfer Fluid



DESCRIPTION

Thermal Charge® EGHD heat transfer fluid is a heavy duty formulation of ethylene glycol and a specially formulated package of industrial corrosion inhibitors for use in closed systems with copper and other metal components, and for systems that require reliability in higher temperature operations. The fluid is dyed fluorescent orange to aid in leak detection. Solutions in water provide freeze protection to below -50°C (-60°F) and burst protection to below -73°C (-100°F). This product is not intended for use in vehicle or stationary engine applications.

BENEFITS

- **Excellent low temperature pumpability and hot surface protection**
- **Robust inhibitor package increases component life:** Formulated with a heavy duty industrial inhibitor package for superior corrosion protection and resistance to fouling. Meets the ASTM D3306 requirements for ASTM D1384 which is the industry standard test method to demonstrate corrosion protection of all system metals. Dilutions below 65% volume meet ASTM D8039 requirements for use in heat transfer applications and HVAC systems
- **Nonflammable:** Because the flash and fire points of Thermal Charge EGHD are above the boiling point of water, it presents little fire hazard in storage or when mixed with water at concentrations of 20% or greater.

SUITABLE APPLICATIONS

- Boiler systems
- Hydronic heating or cooling systems
- Power generating systems
- Snow melting systems
- Solar heating systems
- Thermal energy storage
- Trace line insulation & heating
- Water bath heaters
- Natural gas pipeline heaters
- Cooling systems for electric generator engines
- Chemical plant HVAC system
- Power plant combustion air pretreaters
- Refineries
- Pulp & paper processing HVAC systems
- Cooling for gas turbine systems
- Ground source heat pumps
- Computer cooling systems

| TEMPERATURE | | FOR FREEZE PROTECTION | FOR BURST PROTECTION |
|-------------|------|-----------------------|----------------------|
| (°F) | (°C) | | |
| 20 | -7 | 17% | 12% |
| 10 | -12 | 27% | 18% |
| 0 | -18 | 36% | 24% |
| -10 | -23 | 42% | 28% |
| -20 | -29 | 47% | 32% |
| -30 | -34 | 50% | 32% |
| -40 | -40 | 56%** | 32% |
| -50 | -46 | 60%** | 32% |
| -60 | -51 | 64%** | 32% |

**At temperatures below 0°F (-18°F), PG based fluids can demonstrate increased viscosities >1,000 cps (>1,000 mPa·s) that can promote cold-start pumpability issues within applications.

To order, please call **1-800-323-5440**
or email commercial@owi.com

For technical support, call 1-800-477-5847

| PROPERTIES | ASTM TEST METHOD | TYPICAL VALUES FOR THERMAL CHARGE EGHD | | | | | | | | | |
|-----------------------------|---------------------|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | % VOL 30% | 35% | 40% | 45% | 50% | 55% | 60% | 65% | 70% | 100% |
| Specific Gravity @ 60/60 °F | D1122 | 1.042 | 1.049 | 1.054 | 1.066 | 1.069 | 1.076 | 1.082 | 1.088 | 1.090 | 1.122 |
| pH of Solution | D1287 | 9 min | 9 min | 9 min | 9 min | 9 min | 9 min | 9 min | 9 min | 9 min | 9 min† |
| Reserve Alkalinity, mL | D1121 | report | report | report | report | 5 min | 5 min | 5 min | 5 min | 5 min | 10 min |
| Freezing Point, °F/°C | D1177, D3321, D6660 | 4/-16 | 1/-17 | -7/-22 | -17/-27 | -37/-38 | -42/-41 | <-60/-51 | <-60/-51 | <-60/-51 | <-60/-51† |
| Burst Point, °F/°C | - | -14/-26 | -20/-29 | -60/-51 | -60/-51 | -60/-51 | -60/-51 | <-60/-51 | <-60/-51 | <-60/-51 | <-60/-51 |
| Boiling Point*, °F/°C | D1120 | 220/104 | 221/105 min | 222/106 min | 224/107 min | 225/107 min | 227/108 min | 230/110 min | 235/113 min | 238/114 min | 295/146 min |
| Chloride, ppm | D5827 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <25 |
| Odor | - | Not Offensive | | | | | | | | | |
| Color | - | Orange | | | | | | | | | |

* At atmospheric pressure
† At 50/50 dilution

PRODUCT AVAILABILITY

| | PART NUMBER | | | | | | | | | |
|-----------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Bulk | THD030 | THDW30 | THD040 | THDW40 | THD050 | THDW50 | THD060 | THDW60 | THD070 | THD000 |
| 275 Gallon Tote | THD038 | THDW38 | THD048 | THDW48 | THD058 | THDW58 | THD068 | THDW68 | THD078 | THD008 |
| 55 Gallon Drum | THD031 | THDW31 | THD041 | THDW41 | THD051 | THDW51 | THD061 | THDW61 | THD071 | THD001 |
| 5 Gallon Pail | - | - | - | - | THDW55 | - | - | - | - | THD005 |



Manufactured for Old World Industries, LLC Northbrook, IL 60062 • (800) 289-7234
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