

THERMAL CHARGE®

HEAT TRANSFER FLUID

EG Inhibited Ethylene Glycol-Based Heat Transfer Fluid



DESCRIPTION

Thermal Charge® EG is an inhibited ethylene glycol-based heat transfer fluid widely used for process heating and cooling applications, for freeze and burst protection of pipes, and for various ice-making, deicing, defrosting, and dehumidifying applications. This product is not intended for use in vehicle or stationary engine applications.

BENEFITS

- **Excellent low temperature performance:** At a 50/50% by volume mix, provides freeze protection to -37 °F (-38 °C), burst protection to -60 °F (-51 °C) and excellent low temperature pumpability
- **Exceptional resistance to fouling and corrosion:** Formulated to control degradation, while providing corrosion protection and pH stability
- **Superior corrosion protection:** Utilizes an advanced inhibitor technology that passivates metal surfaces to prevent corrosion. Meets ASTM D3306 performance requirements for the D1384 corrosion test, demonstrating excellent protection to all cooling 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 ethylene glycol are above the boiling point of water, glycols present little fire hazard in storage or handling when mixed with water of 20% concentrations or greater
- **Leak detection:** Dyed fluorescent pink color to aid in leak detection

SUITABLE APPLICATIONS

- Closed-loop water based HVAC
- Cooling towers and chillers
- Fire sprinkler systems
- Gas dehydration units
- Ground source heat pumps
- Ground freeze protection
- Ice-making & skating rink systems
- Thermal energy storage
- Secondary loop refrigeration
- Snow melting systems
- Trace line insulation & heating
- Water bath heaters

| FREEZE/BURST PROTECTION CHART Weight % Thermal Charge EG Required | | | |
|--|------|-----------------------|----------------------|
| 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% |

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 EG | | | | | | | | | |
|-----------------------------|---------------------|--------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | 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 | 1.09 | 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 | -5/-21† |
| Burst Point, °F/°C | - | -14/-26 | -20/-29 | -60/-51 | -60/-51 | -60/-51 | -60/-51 | <-60/-51 | <-60/-51 | <-60/-51 | nd |
| Boiling Point*, °F/°C | D1120 | 220/104 min | 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 | - | Pink | | | | | | | | | |

* At atmospheric pressure
† At 50/50 dilution

PRODUCT AVAILABILITY

| | PART NUMBER | | | | | | | | | | |
|-----------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
| Bulk | TFA030 | TFAW30 | TFA040 | TFAW40 | TFAW50 | TFA050 | TFA060 | TFAW60 | TFA070 | TFA000 | |
| 275 Gallon Tote | TFA038 | TFAW38 | TFA048 | TFAW48 | TFAW58 | TFA058 | TFA068 | TFAW68 | TFA078 | TFA008 | |
| 55 Gallon Drum | TFA031 | TFAW31 | TFA041 | TFAW41 | TFAW51 | TFA051 | TFA061 | TFAW61 | TFA071 | TFA001 | |
| 5 Gallon Pail | - | - | - | - | TFAW55 | - | - | - | - | TFA005 | |



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