

THERMAL CHARGE™

HEAT TRANSFER FLUID

PGHD CONCENTRATE & 50/50

Inhibited Propylene Glycol-Based Heat Transfer Fluid

DESCRIPTION

THERMAL CHARGE™ PGHD heat transfer fluid is a heavy duty formulation of propylene glycol and a specially formulated package of industrial corrosion inhibitors for use in closed systems with copper components and for systems that require reliability in higher temperature operations.

BENEFITS

- + **Excellent Low Temperature Pumpability and Hot Surface Protection** - Provides freeze protection to -50°F (-46°C) and hot surface protection up to 310°F (154° C)
- + **Robust Inhibitor Package Increases Component Life** - Formulated with a heavy-duty industrial inhibitor package for superior corrosion protection and resistance to fouling. Formulated to neutralize degradation compounds and prevent pH from dropping out of solution. Meets ASTM D3306 corrosion protection requirements of the ASTM D1384 test method, which is the industry test method for corrosion protection of system metals (copper, standard solder, brass, steel, cast iron & cast aluminum)
- + **Low Toxicity** - Propylene glycol has low acute oral toxicity if accidentally ingested by mammals
- + **Nonflammable** - Since 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 yellow color to aid in leak detection

SUITABLE APPLICATIONS

- + Boiler Systems
- + Fire Sprinkler Systems
- + Hydronic Heating or Cooling Systems
- + Ice Making & Ice Skating Rink Systems
- + Power Generating Systems
- + Secondary Loop Refrigeration
- + Snowmelt Systems
- + Solar Heating Systems
- + Thermal Energy Storage
- + Trace Line Insulation & Heating
- + Water Bath Heaters

PROPERTIES

ASTM TEST METHOD

TYPICAL VALUES

Reserve Alkalinity	D-1121	4.5 - 6.4
Specific Gravity @ 60° F	D-1122	1.031 - 1.061
pH 50/50 Solution	D-1287	10.0 - 11.0
Odor	-	Not Offensive
Fluid Wt. per Gallon	-	8.72 lbs./gal
Color	-	Fluorescent Yellow



Part #	UNIT
TDP001	55 GAL Drum Concentrate
TDP060	Bulk 60/40
TDPW51	55 GAL Drum 50/50

Additional pre-diluted concentrations are available upon request, please contact us to learn more

HEAT TRANSFER FLUID % VOLUME REQUIRED*

Thermal Charge PGHD should be blended with good quality water† to provide the optimal level of freeze and burst protection your system requires.

TEMPERATURE (F°)	(C°)	FOR FREEZE PROTECTION	FOR BURST PROTECTION
20	-7	18%	12%
10	-12	29%	20%
0	-18	36%	24%
-10	-23	42%	28%
-20	-29	46%	30%
-30	-34	50%	33%
-40	-40	54%	35%
-50	-46	57%	35%
-60	-51	60%	35%

*These figures are examples. For an added range of protection, select a temperature from this chart that is at least 5°F (3°C) lower than the expected lowest ambient temperature. Solutions less than 25-30% may not provide adequate corrosion protection.

†Recommended water specifications are: Water Hardness 100 ppm or less, Chloride 25 ppm or less, Sulfate 25 ppm or less, Calcium 50 ppm or less, Magnesium 50 ppm or less. Thermal Charge PGHD is also available in pre-diluted formulas if a good quality water source is not available.



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