

THERMAL CHARGE®

HEAT TRANSFER FLUID

PGHD

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 and other metal components, and for systems that require reliability in higher temperature operations. 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
- **Lower toxicity:** Propylene glycol has lower acute oral toxicity* if accidentally ingested by mammals
- **Nonflammable:** Because the flash and fire points of Thermal Charge® PGHD 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

*As compared to ethylene glycol-based formulas.

SUITABLE APPLICATIONS

- Boiler systems
- Data centers
- Fire sprinkler systems
- Hydronic heating or cooling systems
- Ice-making & skating rink systems
- Power generating systems
- Secondary loop refrigeration
- Snow melting systems
- Solar heating systems
- Thermal energy storage
- Trace line insulation & heating
- Water bath heaters

FREEZE/BURST PROTECTION CHART

Volume % THERMAL CHARGE® PGHD Required

TEMPERATURE		FOR FREEZE PROTECTION	FOR BURST PROTECTION
(°F)	(°C)		
20	-7	19%	13%
10	-12	30%	21%
0	-18	38%	25%
-10	-23	44%	30%
-20	-29	48%	32%
-30	-34	52%	35%
-40	-40	57%**	37%
-50	-46	60%**	37%
-60	-51	63%**	37%

**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	% VOL		TYPICAL VALUES FOR THERMAL CHARGE® PGHD									
		30%	32.5%	35%	40%	45%	50%	55%	60%	65%	70%	100%	
Specific Gravity @ 60/60 °F	D1122	1.02-1.04	1.03-1.04	1.03-1.04	1.03-1.04	1.03-1.04	1.03-1.04	1.04-1.048	1.04-1.05	1.04-1.05	1.05-1.06	1.05-1.06	
pH of Solution	D1287	9 min	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	report	5 min	5 min	5 min	5 min	5 min	10 min	
Freezing Point, °F/°C	D1177, D3321, D6660	9/-13	4.5/-15	2/-17	-6/-21	-16/-27	-28/-33	-43/-42	<-60/-51	<-60/-51	<-60/-51	<-60/-51†	
Burst Point, °F/°C	-	-14/-26	-15/-26	-38/-39	-60/-51	-60/-51	-60/-51	-60/-51	<-60/-51	<-60/-51	<-60/-51	<-60/-51	
Boiling Point*, °F/°C	D1120	216/102	216/102 min	217/103 min	219/104 min	220/104 min	222/106 min	223/106 min	225/107 min	227/108 min	229/109 min	310/154 min	
Chloride, ppm	D5827	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	
Odor	-	Not Offensive											
Color	-	Fluorescent Yellow											

* At atmospheric pressure

† At 50/50 dilution

PRODUCT AVAILABILITY

PART NUMBER

Bulk	TDP030	TDP032	TDPW30	TDP040	TDPW40	TDPW50	TDP050	TDP060	TDPW60	TDP070	TDP000
275 Gallon Tote	TDP038	-	TDPW38	TDP048	TDPW48	TDPW58	TDP058	TDP068	TDPW68	TDP078	TDP008
55 Gallon Drum	TDP031	-	TDPW31	TDP041	TDPW41	TDP001	TDP051	TDP061	TDPW61	TDP071	TDP001
5 Gallon Pail	-	-	-	-	-	TDPW55	-	-	-	-	TDP005



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