

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
- **Low toxicity:** Propylene glycol has low 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

SUITABLE APPLICATIONS

- Boiler systems
- 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	TYPICAL VALUES FOR THERMAL CHARGE PGHD									
		% VOL									
		30%	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	1.04-1.048	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†
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	9/-13	2/-17	-6/-21	-16/-27	-28/-33	-43/-42	<-60/-51	<-60/-51	<-60/-51	<-60/-51†
Burst Point, °F/°C	-	-14/-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	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
Odor	-	Not Offensive									
Color	-	Fluorescent Yellow									

* At atmospheric pressure
† At 50/50 dilution

PRODUCT AVAILABILITY

	PART NUMBER										
Bulk	TDP030	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	



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