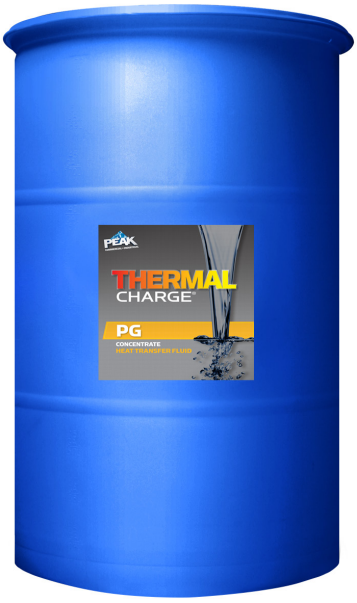
THERMAL CHARGE®

HEAT TRANSFER FLUID

PG

Inhibited Propylene Glycol-Based Heat Transfer Fluid

NSF
Nonfood Compounds
Program Listed HT1



DESCRIPTION

THERMAL CHARGE® PG is an inhibited propylene glycol-based heat transfer fluid for heating and secondary cooling applications for which a low toxicity heat transfer fluid is required. Applications include freeze and burst protection for pipes, ice-making, defrosting, deicing and dehumidifying. It is also registered with the NSF for use where there is the possibility of incidental food or beverage contact (HT1).

BENEFITS

- **Excellent low temperature performance:** At a 50/50 mix, provides freeze protection to -28°F (-33°C) and excellent low temperature pumpability
- **Registered with the NSF as an HT1 product:** Meets US FDA Generally Recongized as Safe (GRAS) requirements and is registered for use in food and beverage plants
- **Superior resistance to fouling and corrosion:** Formulated to control degradation, while providing corrosion protection and pH stability. 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
- **Low toxicity:** Low acute oral toxicity enables THERMAL CHARGE® PG to be used in regulated industries such as food, beverage, pharmaceutical, and consumer products
- **Nonflammable:** Because the flash and fire points 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

FREEZE/BURST PROTECTION CHART
Volume % THERMAL CHARGE PG Required

TEMPERATURE (°F)	TEMPERATURE (°C)	FOR FREEZE PROTECTION	FOR BURST PROTECTION
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.*

APPLICATIONS

- Closed-loop water based HVAC
- Cooling towers and chillers
- Food and beverage
- Fire sprinkler systems
- Ground freeze prevention
- Ice-making & skating rink systems
- Irrigation systems
- Refrigeration and freezing
- Trace line insulation & heating
- Water bath heaters

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

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

PROPERTIES

PROPERTIES	ASTM TEST METHOD	% VOL 30%	35%	40%	45%	50%	55%	60%	65%	70%	100%
		TYPICAL VALUES FOR THERMAL CHARGE PG									
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	-	Colorless									

** At atmospheric pressure*
† At 50/50 dilution

PRODUCT AVAILABILITY

	PART NUMBER 30%	35%	40%	45%	50%	55%	60%	65%	70%	100%
Bulk	TFP030	TFPW35	TFP040	TFPW40	TFPW50	TFP055	TFP060	TFPW60	TFPW70	TFP000
275 Gallon Tote	TFP038	TFPW38	TFP048	TFPW48	TFPW58	TFP058	TPF068	TFPW68	TFP078	TFP008
55 Gallon Drum	TFP031	TFPW31	TFP041	TFPW41	TFPW51	TFP051	TFP061	TFPW61	TFP071	TFP001
5 Gallon Pail	-	-	-	-	TFPW55	TFP550	-	-	TFP750	TFP005
SDS ID	200021	200022	200023	200024	200025	200026	200027	200028	200029	200030

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