

# THERMAL CHARGE®

## HEAT TRANSFER FLUID

# PG ORANGE

Inhibited Propylene Glycol-Based Heat Transfer Fluid



Nonfood Compounds 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 35/65 mix, provides burst protection to -38°F (-39°C) and excellent low temperature pumpability
- **Registered with the NSF as an HT1 product:** contains dye permitted for use in food, and is registered with the NSF (HT1) as suitable for use in food and beverage plants where incidental contact with foods, beverages and potable water could occur
- **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

### SUITABLE 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

FREEZE/BURST PROTECTION CHART			
Volume % THERMAL CHARGE PG 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.

**\*DO NOT USE A CONVENTIONAL ETHYLENE GLYCOL HYDRMETER TO TEST FOR PROPYLENE GLYCOL COOLANTS**

To order, please call **1-800-323-5440** or email: [commercial@owi.com](mailto:commercial@owi.com)

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

PROPERTIES	ASTM TEST METHOD	% 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	1.04-1.05	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, D6660, D3321	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	-	Orange									

\* At atmospheric pressure  
† At 50/50 dilution

PRODUCT AVAILABILITY	% VOL									
	30%	35%	40%	45%	50%	55%	60%	65%	70%	100%
55 gal	TP0031-OR	TP0B31-OR	TP0Q41-OR	TP0B41-OR	TP0051-OR	TP0B51-OR	TP0061-OR	TP0B61-OR	TP0071-OR	TP00B1
275 gal	TOP038	TOPW38	TP0Q48-OR	TP0B45-OR	TP0058-OR	TP0B58-OR	TP0068-OR	TP0B68-OR	TP0078-OR	TOP0B8
Bulk	YFP030-OR	YFPW35-OR	YFP040-OR	YFP045-OR	YFP050-OR	YFP055-OR	YFP060-OR	YFP065-OR	YFP070-OR	YFP000-OR



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