



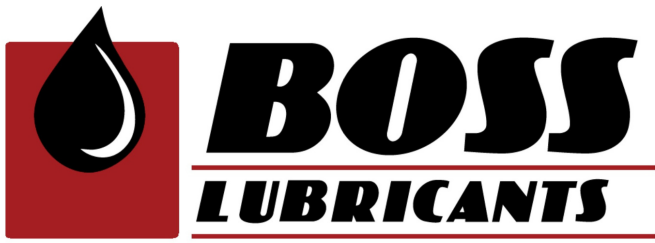
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CANADIAN MADE.  
FOR CANADIAN CLIMATES.

# HVAC Heat Transfer Fluids

CHILL PG  
CHILL EG  
CHILL FG



[www.bosslubricants.com](http://www.bosslubricants.com)



# Need heat transfer fluid? Think like a BOSS



**We don't just make HVAC heat transfer fluids for our industry partners. We don't just sell them. And we don't just deliver them. We do all of that—and more.**

BOSS Lubricants is like no other producer and supplier of heat transfer fluids, and that's because we handle the entire process. We offer technical and laboratory support, produce

your marketing literature, provide additives as necessary, and not only deliver—but fill closed- or open-loop HVAC systems onsite, which saves on handling costs.



Contact us



[bosslubricants.com](http://bosslubricants.com)



[info@bosslubricants.com](mailto:info@bosslubricants.com)



1-800-844-9457



# **BOSS**

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## **LUBRICANTS**

Whether it's Chill PG,  
Chill EG or Chill FG, the full  
**BOSS** experience for heat  
transfer fluid includes:

### Technical Support

- Assistance in pursuing **new business**
- Assistance with customer problems
- Assistance with **regulatory compliance**

### Laboratory Support

- Bottles, labels, boxes
- Written analytical and recommendation **reports**
- **Free testing** for customer system issues
- Competitive **fluid analysis**

### Additives

- We offer **customized make-up additives** for system fluid maintenance

### Marketing and Sales Support

- We provide all basic marketing literature, including **product bulletins, SDS's and technical manuals**
- We'll assist you with your own **customized literature**
- Our technical personnel will be available to **meet with you and prospective customers**



### Delivery and System Fill

- Our dedicated fleet can **fill, onsite, new HVAC closed- or open-loop systems**, which saves contractors man-hours and handling costs



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# BOSS

## LUBRICANTS

## For starters: Prepping your system for heat transfer fluids

**EXISTING SYSTEMS:** Clean the entire system to remove rust, scale, sediment, chlorides (from old fluid or acid cleaner), oil or grease, and silicates (from antifreeze). An acid cleaning is typically used, followed by neutralization and phosphatization. Cleaning chemicals must be rinsed thoroughly from your system; bringing in a professional industrial cleaning company usually yields best results.

**NEW SYSTEMS:** Primary issues encountered during cleaning can include protective coatings (oil, thin grease, cosmoline) on metal components, dirt, solder flux and welding scale. New systems can usually be circulated and flushed with 2% to 3% TSP solution or diluted Locomotive Cleaner™.



Project: City of Calgary  
Shepard Landfill Site



Project: Studio Bell Calgary



Project: City of Calgary  
Shepard Landfill Site

## Ethylene Glycol (EG) vs. Propylene Glycol (PG)

- PG viscosity is somewhat higher; heat transfer efficiency is lower and cold-weather performance not as good
- PG has low acute oral toxicity, while EG has moderate acute oral toxicity and is DOT-regulated in quantities of >5,000 pounds
- EG is prohibited from use in HVAC systems in some municipalities
- PG should be used where accidental contact with food or beverage products can occur, or where incidental contact with drinking water is possible



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## BOSS Chill Propylene Glycol Food Grade Heat Transfer Fluid

### PRODUCT DESCRIPTION & BENEFITS

BOSS Chill Propylene Glycol Food Grade heat transfer fluid is used where the fluid may come into accidental or incidental contact with food, beverage products or drinking water may occur. With its special inhibitor package BOSS Chill Propylene Glycol Food Grade heat transfer fluid helps prevent the corrosion of metals, minimizes scaling and fouling of surfaces and buffers the pH to maintain it in the optimum operating range. It is compatible with all common metals in heat transfer systems and is compatible with most plastic construction materials. BOSS Chill Propylene Glycol Food Grade Fluid can be used to provide both freezing protection and burst protection for systems which may be exposed to very low temperatures. This product is pending CFIA approval.

### PERFORMANCE SPECIFICATION

	<b>BOSS Chill PG Food Grade</b>
Specific Gravity @ 21°C(70°F)	1.25 - 1.30
pH	10.0 - 11.0
Colour	Clear
As Concentrated Heat Transfer Fluid	
Specific Gravity @ 21°C(70°F)	1.04 - 1.06
pH 50% glycol/water	9.0 - 10.5
Reserve Alkalinity	10ml min

NOTE: VALUES SHOWN ABOVE ARE REPRESENTATIVE OF CURRENT PRODUCTION AND MAY VARY WITHIN MODEST RANGES.

### APPLICATIONS

- HVAC Systems
- Fire Systems
- Solar Heating
- Refrigeration Warehouse Floor Heating
- Sidewalk/Playing Field subsurface Heating/Cooling
- Cold Room Dehumidification Systems
- RV Storage Antifreeze

\*In order to provide superior quality, BOSS Lubricants reserves the right to change composition of its products without notice.



**BOSS Chill Propylene Glycol Food Grade Heat Transfer Fluid**

Physical Property	Temp °F Solution	15% Glycol Solution	30% Glycol Solution	40% Glycol Solution	50% Glycol Solution	60% Glycol Solution
Thermal Conductivity [BTU/(hr-ft <sup>3</sup> )( °F/ft)]	40	0.282	0.253	0.231	0.211	0.190
	180	0.327	0.285	0.255	0.228	0.199
	325	0.321	0.284	0.254	0.217	0.189
Specific Heat [BTU/lb-°F ]	40	0.955	0.915	0.855	0.802	0.740
	180	0.989	0.967	0.924	0.886	0.839
	325	1.010	0.992	0.995	0.973	0.942
Viscosity, Centipoise	40	2.85	5.69	9.58	14.01	23.11
	180	0.49	0.62	0.81	1.00	1.21
	325	0.20	0.38	0.34	0.37	0.39
Density, (lb/ft <sup>3</sup> )	40	63.67	64.76	66.33	67.00	67.60
	180	61.36	62.01	62.91	63.79	64.11
	325	58.28	58.61	58.73	59.02	59.04

Vol.% Propylene Glycol	Vol. % Finished Product	Freeze Point, °F	Boiling Point, °F 760 mm Hg
15%	15.6	22.7	213
30%	31.2	8.4	216
40%	41.6	-6.7	218
50%	52.1	-28.6	222
60%	62.5	-60	226

Characteristics	Using Propylene Glycol
<b>Composition (Concentrate)</b>	
Propylene Glycol	96.0 Volume % max.
Inhibitor & Deionized Water	4.0 Volume % min.
<b>pH</b>	
50% Solution	9.0 - 10.5
30% Solution	9.0 - 10.5
<b>Specific Gravity (60°F)</b>	
96% Solution	1.040 min.
50% Solution	1.020 min.
<b>Reserve Alkalinity</b>	
96% Solution	10.0 ml. min.
50% Solution	5.0 ml. min.
<b>Flash Point Propylene Glycol</b>	
96% Solution	220°F min.
50% Solution	none



