Everhot "Super Arctic" —100°F

NON-TOXIC INHIBITED PROPYLENE GLYCOL FLUID*

For protecting mechanical piping and HVAC systems against freeze-up and corrosion.

Freeze protection to -60°F.
Burst protection to -100°F.
Non-toxic*

Everhot Propylene Glycol Fluid is designed to protect water-based heating or cooling systems and closed-loop piping systems against freeze damage and internal corrosion.

Everhot Propylene Glycol is an inhibited fluid, appropriate for virtually all heating/cooling applications in the most demanding environments. In HVAC piping, this fluid provides reliable heat transfer across a wide range of temperatures, and will protect exposed lines from cold temperatures to -60°F from freezing, and affords burst protection to -100°F. The fluid also works to prevent buildup of corrosive deposits within the piping loop, achieved by corrosive-fighting agents within the fluid.

*The reference "non-toxic" is used to characterize an extremely low chronic and acute toxicity. No authority has established a safe maximum for human consumption. This product is considered generally safe by the Food and Drug Administration.

IDEAL FREEZE PROTECTION:

Glycol fluids are widely recognized for their ability to lower the freezing point of water and are logically used to service freeze protection in heating and cooling systems. An advantage to Everhot Propylene Glycol Fluid is its ability to be used at different concentrations to best serve each application. For example: A 60% concentration by volume of Everhot Propylene Glycol Fluid in a solution will protect against ice crystals forming to a temperature of -1°F. Increasing the concentration to 80% within the same solution will prevent ice crystal formation to a temperature of -23°F.

EVERHOT GLYCOL FLUID FEATURES:

- Good heat transfer rate, extending the allowable operating temperatures for water based systems while maintaining desired efficiency.
- Active, stable and long fluid life. Assuming proper maintenance of the HVAC System, Everhot Glycol Fluid maintains the stated properties for freeze protection for years at a time.
- Low maintenance requirements. Periodic testing to verify the concentration level of the fluid is recommended. This is vastly superior to the time and labor involved in draining systems for heat protection and later refilling the system.

A hand-held refractometer that accurately measures the temperature resistance of glycol and other fluids is available from Therma-Flow/Everhot. Inquire to factory.

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Concentrations of EVERHOT GLYCOL FLUID necessary to provide freeze protection and burst protection at temperature levels shown. (It is highly recommended that for maximum freeze and burst protection "Super Arctic" should be used undiluted.)

PARTS OF SUPER ARCTIC	TO	PARTS OF WATER	=	FREEZE PROTECTION °F	BURST PROTECTION °F
1		0		-60	-100
9		1		-55	-100
4		1		-28	-100
7		3		-13	-100
3		2		-3	-80
1		1		6	-70

PLEASE NOTE BEFORE INSTALLING:
The information listed on this data sheet and on the respective container is for the typical ideal situation and is believed to be accurate. However, since the applications for the product and conditions of use are beyond the control of Everhot Products, all recommendations are made without any express or implied warranties. The formulations shown in the above chart are for illustration purposes only. The manufacturer and respective distributors disclaim any and all liability in connection with the use of the information shown.

SYSTEM PREPARATION:
For New Systems: Make sure all foreign particles are removed, as well as any coatings, oil, grease, etc. that may have been applied during pipe assembly. If a chemical agent is used for a cleanout, it is important that the system be excessively flushed with water prior to installing Everhot Propylene Glycol Fluid.

SPECIFICATIONS FOR USING EVERHOT GLYCOL FLUID
Inhibited Glycol Fluid

To protect pipes from freeze damage: requires use of Everhot Propylene Glycol Fluid in concentration levels that will prevent ice crystals from forming at the lowest temperature level you anticipate. Such freeze protection is critical in situations where the fluid to be pumped will face low temperatures.
To protect pipes from bursting: requires a concentration that is substantial enough to avoid a burst or related mechanical damage. In situations where burst protection is needed, but the ability to pump the fluid is not critical, the burst protection does not need as high a concentration of glycol fluid as for freeze avoidance.
About pumping fluids:
Systems using Everhot Glycol Fluid generally have centrifugal pumps. Where flow occurs at high head pressures, a reciprocating pump is needed. In either case, the same mechanical seal used for water may be used with Everhot Propylene Glycol Fluid.

Sample corrosion test results/weight loss.

Stated in milligrams (mils penetration per year)

	Water	Propylene Glycol	EVERHOT GLYCOL FLUID
Copper	2 (0.08)	4 (0.16)	5 (0.20)
Solder	99 (3.14)	1095 (34.7)	1 (0.03)
Brass	5 (0.23)	5 (0.20)	4 (0.16)
Mild Steel	212 (9.69)	214 (9.80)	1 (0.04)
Cast Iron	450 (21.2)	345 (16.2)	3 (0.15)
Aluminum	110 (13.2)	15 (1.80)	+2 (0.26)

TESTING: ASTM D1384 — 190°F for 2 weeks, 30% by volume glycol, air bubbling

CORROSION REDUCING AGENTS:
Most HVAC piping systems will be subject to internal corrosion over their working life span due to acids that form during normal flow of water and/or fluids. Air and plain water are corrosive and even plain ethylene glycol fluids can greatly accelerate corrosion against certain metals. As the chart shows, the formula in Everhot's Propylene Glycol Fluid will retard corrosive action to a most pronounced level — far better than water alone or plain glycol.

- Corrosion protection can be restored without resorting to draining/refilling the system. Consult factory for procedures.
- Consult factory for test devices for accurate measure of glycol concentration.

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