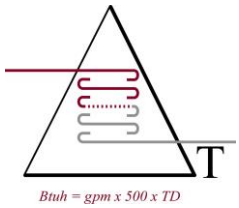

PROTOCOL® FG

FCC/USDA GRADE COOLANT

Product Description

PROTOCOL FG is an FCC grade of propylene glycol inhibited for applications where the possibility of incidental food contact exists.
FG blends meet or exceed the criteria established by the United States Department of Agriculture, found under the Food Chemicals Codex Title 21 CFR 184.1666.

The inhibitor package in PROTOCOL FG meets the quality requirements outlined under FCC Title 21 CFR 182.6285. In addition, PROTOCOL FG blends also meet or exceed the quality requirement of the Grade A Milk Pasteurization Ordinance of the United States Dairy Industry. This product was developed to satisfy the requirements established for non-toxic service, as well as to provide excellent freeze point depression, burst protection, and corrosion protection in closed circuit Hydronic systems.

PROTOCOL FG fluids have an operating range from -50°F to 250°F, depending on the concentration, and contains inhibitors specifically formulated to keep system metals free from corrosion without comprising the integrity of the food grade propylene glycol.

PROTOCOL FG is available as concentrate or premixed with deionized water to meet your exact specification for freeze, burst, and boil-protection. We recommend that PROTOCOL FG heat transfer fluid be purchased premixed with deionized water to ensure that optimal corrosion protection and heat transfer efficiency is achieved.

Note: PROTOCOL FG coolants should not be used in systems containing galvanized steel unless etching of the zinc or magnesium based coatings is acceptable.

Technical Data

Typical composition: FG-100, v%

Propylene Glycol	≥ 93
Inhibitors	≥ 6
Color	Water white
Specific Gravity	~1.04 – 1.06
pH, 50% solution	~8.5 – 10.5
Reserve Alkalinity, 100%	~10.0

Typical physical properties of a 40v% blend.

BP @ 760 mm Hg	~219 °F
Flash Point (40v%)	None
VP mm Hg (@ 100°F)	~44
Thermal Conductivity	~0.24
Specific Heat (@ 100°F)	~0.90
Viscosity, cP (40% @ 100°F)	~2.3

Typical properties of aqueous solutions.

Freeze Point (°F)	Volume %	Boiling Point (°F)
26	10	212
19	20	213
15	25	214
8	30	216
1	35	217
- 7	40	219
- 28	50	222