



# PROTOCOL<sup>®</sup> NT-100

INDUSTRIAL GRADE COOLANT

## Product Description

PROTOCOL NT is a propylene glycol based heat transfer fluid. The NT blends will provide excellent freeze point depression, burst protection, and corrosion protection in water-based, closed circuit heating and air conditioning systems when a non-toxic coolant is preferred or mandated by law.

PROTOCOL NT fluids have an operating range from -50°F to 325°F. The fluid contains a blend of organic and inorganic inhibitors specifically formulated to keep mixed metal systems free of corrosion and without fouling critical heat exchange surfaces.

PROTOCOL NT coolants are available as concentrate or premixed with deionized water to meet your specification for freeze, burst, and boil protection. We recommend purchasing PROTOCOL NT heat transfer fluid premixed with deionized water to ensure optimal corrosion protection and heat transfer efficiency is achieved.

PROTOCOL NT has little or no negative effect on seals, elastomers, or other construction materials commonly found in HVAC systems. However, we do not recommend its use in systems containing CPVC (chlorinated polyvinyl chloride). Test Data by manufacturers has shown that glycols weaken this material and warn that the use of ethylene or propylene glycol with CPVC could lead to stress cracks and premature failure.

*"Performance products of unparalleled quality and value" sm*

## Technical Data

Typical composition: NT-100, v%

|                          |                 |
|--------------------------|-----------------|
| Propylene Glycol         | ≥ 93            |
| Inhibitors               | ≥ 6             |
| Color (typical)          | Bright Pink     |
| Specific Gravity         | ~ 1.040 – 1.059 |
| pH, 50% solution         | ~ 8.5 – 11.0    |
| Reserve Alkalinity, 100% | ~ 11.0 min.     |

Typical properties of NT-40 v% solutions:

|                                    |          |
|------------------------------------|----------|
| BP @ 760 mm Hg (40%)               | ~ 220 °F |
| Flash Point (40%)                  | None     |
| VP mm Hg (40% @ 100°F)             | ~ 44     |
| Thermal Conductivity (40% @ 100°F) | ~ 0.24   |
| Specific Heat (40% @ 100°F)        | ~ 0.91   |
| Viscosity, cP (40% @ 100°F)        | ~ 2.30   |

Typical properties of aqueous solutions:

| Freeze Point (°F) | Volume % | Boiling Point (°F) |
|-------------------|----------|--------------------|
| 26                | 10       | 212                |
| 19                | 20       | 213                |
| 15                | 25       | 214                |
| 9                 | 30       | 216                |
| 2                 | 35       | 217                |
| -6                | 40       | 220                |
| -28               | 50       | 223                |