



EQUITHERM®

Aluminum-Safe

HVAC HEAT TRANSFER FLUID

EQUITHERM® Manufactured by:
Solvents & Petroleum Service, Inc.
1405 Brewerton Road | Syracuse, NY 13208

Ethylene Glycol



HVAC Heat Transfer Fluid | Ethylene Glycol

EQUITHERM® Aluminum-Safe is a virgin grade ethylene glycol-based heat transfer fluid that utilizes the newest generation of industrial inhibitor technology to guarantee maximum heat transfer efficiency and economy. EQUITHERM® is chemically engineered specifically for systems with aluminum heat exchangers and formulated to protect all multi-metal systems against corrosion and to safe-guard plastic components. EQUITHERM® protects against freezing and bursting while providing enhanced thermal stability, increased system performance and longevity and decreased long-term maintenance costs. Change intervals are extended through the maintainable and replenishable inhibitors in EQUITHERM®. EQUITHERM® can be used with most heat transfer fluids on the market today.

FEATURES

-  Virgin Grade Glycol-Based
-  pH Optimized for Aluminium Systems
-  For Use with Water-based or Glycol-based HTFs
-  Safe for All Common Non-Metallic Components
-  Free from Nitrites, Amines, Silicates, and Borate
-  Scale Inhibitors/Dispersants Prevent Harmful Deposits
-  Foam Control



Available in
Bulk, Mini-Bulk,
Drums and Totes

APPLICATIONS

- HVAC Systems
Freeze, Burst, Corrosion Protection
- Thermal Energy Storage
- Process Cooling & Heating
- Refrigeration Warehouse Floor Heating
- Ice Rinks
- Computer Cooling Systems
- Sidewalk & Playing Field Subsurface Heating

**If your application is not listed, contact SPS to find out how we can service your needs.*

SPECIFICATIONS

- Passes ASTM D1384
Corrosion Test for Engine Coolants in Glassware
- Passes ASTM D1881
Foaming Tendency Test
- Operating Temperature of -50°F to 325 °F
- Hard Water Stability

Typical Properties	Concentrate	60/40	50/50	40/60	30/70
Ethylene Glycol, % wt	96.3	60.4	50.9	41.2	31.3
Inhibitors + Water, % wt	3.7	39.6	49.1	58.8	68.7
Density g/mL 68°F	1.120	1.084	1.072	1.058	1.044
pH, range	8.9 (8.0 - 9.8)	8.3 (7.3 - 8.5)	8.2 (7.3 - 8.5)	8.2 (7.3 - 8.5)	8.2 (7.3 - 8.5)

The following metal test specimens were used:

1. **Steel**, UNS G10200 (SAE 1020), Chemical composition of the carbon steel is as follows: carbon, 0.17 to 0.23%; manganese, 0.30 to 0.60%; phosphorous, 0.040% maximum; sulfur, 0.050% maximum.
2. **Copper**, conforming to UNS C11000 (SAE CA110) of UNS C11300 (SAE CA113). Cold-rolled.
3. **Brass**, conforming to Alloy UNS C26000 (SAE CA 260).
4. **Solder**, A brass specimen coated with solder conforming to Alloy Grade 30A (SAE 3A).
5. **Cast Aluminum**, conforming to Alloy UNS A23190 (SAE 329).
6. **Cast Iron**, conforming to Alloy UNS F10007 (SAE G3500).

Metal	Beaker 1 (mg)	Beaker 2 (mg)	Average Weight Loss (mg)	ASTM Limit* (mg)
Copper	1.23	0.53	0.88	10
Solder	2.37	1.47	1.92	30
Brass	2.40	2.10	2.25	10
Steel	0.20	0.30	0.25	10
Cast Iron	-0.83	-0.83	-0.83	10
Cast Aluminium	-3.80	-0.40	-2.10	30
pH Before	7.55	7.55		
pH After	6.88	7.01		
RA Before (mL of 0.10 N HCl)	0.30	0.30		
RA After (mL of 0.10 N HCl)	0.20	0.15		
Appearance Before	Clear, colorless	Clear, colorless		
Appearance After	Clear, yellow; very slight white ppt	Clear, amber; very slight white ppt		
Notes:				
*Limits published in ASTM D3306 Standard Specification for Glycol Base Engine Coolant for Automobile and Light-Duty Service. These performance limits are also required for heavy duty coolants and recycled coolants (ASTM D6471 or D6472). ASTM D1384 is only a test method.				
A negative number indicates a net weight gain after correcting for the cleaning bank. Refer to the published method for information on the calculation.				



HVAC Heat Transfer Fluid TECHNICAL SERVICE GUIDE

Follow this technical service guide to help catch issues before they cause problems, to extend fluid and equipment performance life and to avoid unplanned downtime. By monitoring and testing heat transfer fluids, thermal and oxidative stresses can be identified and corrected before it's too late.

i **MITIGATE** Risk of...

- Corrosion, Cavitation and Fouling
- Freezing
- Decreased Performance
- Start-up Problems
- Blockages
- Pump Gasket Failures
- Increased Viscosity and Vapor Pressure
- Fire Risks

* **REPLACE** Fluids if...

pH..... >8.8
Chloride..... >200 ppm
Water..... >75

* **ADD** Fluids if...

pH..... <7.0
Molybdate (MoO₄)..... <100 ppm
Benzotriazole (BT)..... <100 ppm

Thresholds provided are meant only as guidelines to indicate fluid break-down and stresses. If thresholds are exceeded, please contact us immediately in order to have a full test analysis conducted and proper actions established.

MONITOR...

Major Component

pH
Chloride
Freeze Point
Molybdate as MoO₄
Organic Corrosion Inhibitors
Defoamer

NEED A SAMPLE TESTED?

Call 1-800-315-4467



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