



NORKOOL™ SLH Heat Transfer Fluids

Description

Dow NORKOOL™ Heat Transfer Fluids are designed for use in natural gas compressor engines, indirect fired heaters, LNG applications and other industrial applications. The synergistic, proven NORKOOL™ formulation offers long-term corrosion protection for carbon steel, copper alloys and solders. NORKOOL™ fluids offer protection from liner cavitation in high speed natural gas engines (rpm > 750), reducing costly downtime and repairs.

Using virgin ethylene glycol and diluted with high purity deionized water, NORKOOL™ fluids offer years of corrosion and freeze protection, if properly maintained. NORKOOL™ is offered in various dilutions:

- NORKOOL™ SLH Concentrate — Fully inhibited ethylene glycol. Dilution is required, using only distilled or deionized water. Dilute to no less than 30% or greater than 50%. Fluid concentration determined by desire freeze and burst protection.
- NORKOOL™ SLH-50 Fluid — 50% ethylene glycol-based, fully inhibited and diluted with deionized water. Recommended for use in northern or cold climates.
- NORKOOL™ SLH-40 Fluid — 40% ethylene glycol-based, fully inhibited product and diluted with deionized water. Recommended for moderate temperatures.
- NORKOOL™ SLH-30 Fluid — 30% ethylene glycol-based, fully inhibited product for southern or warmer climates.

Physical Properties¹ of NORKOOL™ SLH Fluids

	NORKOOL™ SLH Concentrate	NORKOOL™ SLH-50 Fluid	NORKOOL™ SLH-40 Fluid	NORKOOL™ SLH-30 Fluid
Composition (% by volume) ethylene glycol	92.4	50	40	30
Color	Blue-green	Blue-green	Blue-green	Blue-green
Specific gravity (at 68°F/68°F)	1.1355	1.078	1.063	1.047
pH of solutions	N/A	9.8	9.8	9.8
Reserve alkalinity (min.)	12.0	12.0	12.0	12.0
Flash point, °F (P.M.C.C. ²)	232	None	None	None
Fire point, °F (C.O.C. ³)	250	None	None	None

1. Typical properties, not to be construed as specifications
2. Pensky-Martens closed cup
3. Cleveland open cup

Physical Property	Temp. °F	NORKOOL™ SLH Concentrate (92.4% glycol)	NORKOOL™ SLH-50 Fluid	NORKOOL™ SLH-40 Fluid	NORKOOL™ SLH-30 Fluid
Thermal Conductivity, ((Btu/(hr)(ft ²)(°F/ft))	40	0.153	0.219	0.238	0.258
	180	0.159	0.247	0.273	0.301
Specific Heat, (Btu/(lb)(°F))	40	0.56	0.78	0.82	0.87
	180	0.65	0.86	0.89	0.93
Viscosity, (cps)	40	47.7	6.3	4.6	3.4
	180	2.9	0.8	0.7	0.5
Density, (g/mL)	40	1.145	1.087	1.071	1.054
	180	1.090	1.038	1.025	1.008

1. Typical properties, not to be construed as specifications

Freezing Points and Boiling Points of NORKOOL™ SLH Fluids

Freezing Point °F	% Glycol (by vol.)	Boiling Temp. °F
25	10 ¹	214
16	20 ¹	216
3	NORKOOL™ SLH-30 Fluid	220
-13	NORKOOL™ SLH-40 Fluid	222
-35	NORKOOL™ SLH-50 Fluid	225
-55	60	230
< -60	70	242
-49	80	255
-21	90	285
8	100	387

1. Corrosion protection may be inadequate at concentrations this low.

NOTE: In order for the fluid to provide adequate corrosion protection, do not dilute less than 30%. Warm climates often use water, which requires monthly water treatment additives. Using 30% NORKOOL™ provides excellent corrosion protection for many years with minimal maintenance.

It is not recommended to use concentrations above 60% NORKOOL™. Higher concentrations can result in loss of freeze and burst protection. Select the leanest NORKOOL™ concentration to suite the climate for best results.

Contact:
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