SolarHD™ Heat Transfer Fluid

NA10103

01282/22 NA

Function

Solar HD™ is a heat transfer fluid designed for low and high temperature range applications. SolarHD™ is base on the same chemical formula as propelyne glycol (1,2 Propanediol) but the structure has been modified to (1,3 Propanediol) to have less viscosity at low temperatures and is structured with less acid at high temperatures. A premixed nontoxic glycol solution, it is bio-based and is more sustainable for the environment all while providing great performance.

SolarHD™ is manufactured in a sustainable process. It also is the only solar thermal glycol fluid to be NSF listed. NSF International is a public health and environmental organization that provides standards development, product certification and education on food safety requirements.

NSF Registration no. 144912

Product range

NA10103 series SolarHD™ Heat Transfer Fluid ..... 1 pk, 5 gallons

Technical specifications

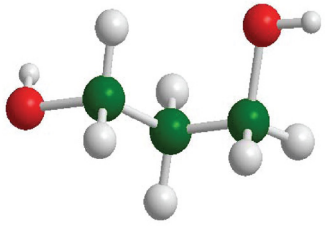
Glycol Fluid

Materials	- Composition:	DI Water and SolarHD™
	- Percentage of glycol:	50%
	- Appearance and Color:	Light Green

Performance

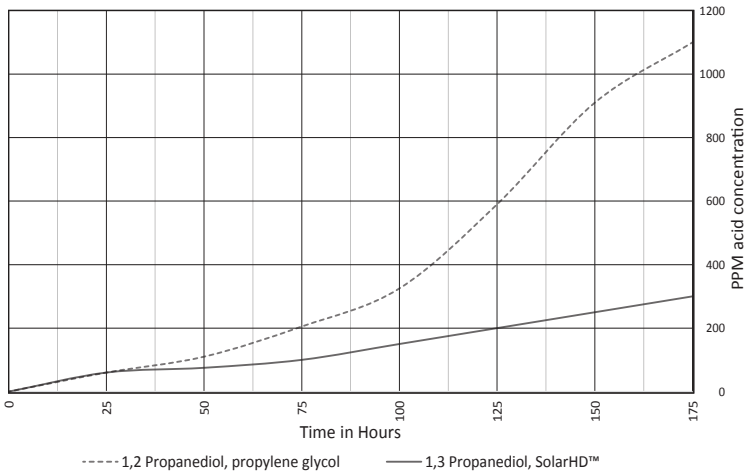
Temperature range:	-40–350°F (-40–176°C)
pH:	7.5 to 9

Agency Approval - SolarHD™ is the only solar thermal glycol fluid to be NSF listed. NSF Category Code: HT1, HT2, NSF Registration No. 144912. NSF International is a public health and environmental organization that provides standards development, product certification and education on food safety requirements. FDA reference: 21 CRF 182.1666, Gosselin TOXICITY INDEX 1, Generally recognized as safe for use as direct food additive.



(1,3 Propanediol)

Compatable with other propylene glycols (i.e. 1,2 Propanediol)



Degradation of Glycol over Time

Acid Concentration vs. Time at 300°F, 28 psi, over 168 test hours

SolarHD™, A premixed nontoxic glycol solution, is test proven to offer added protection from high heat. Long exposure to high heat can often lead to buildup of burnt glycol, or the breaking down of the glycol fluid.

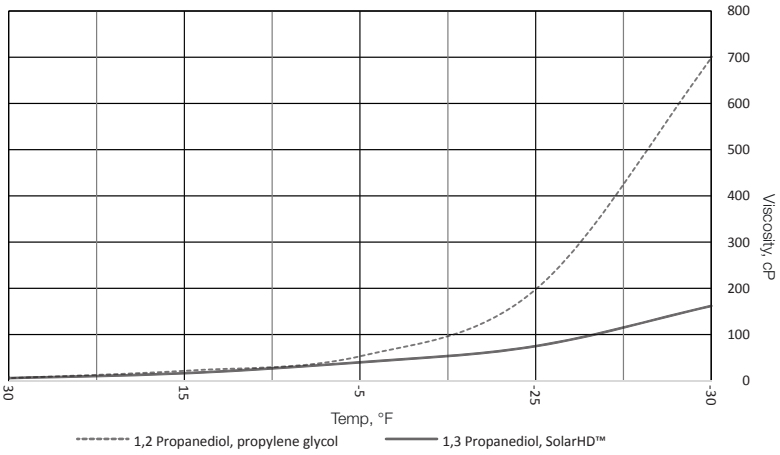
Not only is SolarHD™ manufactured to withstand these high temperatures, with less acid formula build up than typical propylene glycol, it also helps to prevent future corrosion, creation of tar and protection against periods of stagnation.

Absolute Viscosity

Viscosity vs. Temperature, °F

SolarHD™, a premixed nontoxic glycol solution, is test proven to offer added benefit in low temperature settings. As the temperature decreases, traditional propylene glycol viscosity goes up, causing unnecessary wear on the systems pump. At -15 °F, a 50% propylene glycol/ 50% water solution requires 2.4 times the pumping energy as a 50% SolarHD™/50% water solution.

Because SolarHD™ is less viscous than typical propylene glycol in cold temperature, SolarHD™ gives the pump more longevity and less pump performance penalty.



SPECIFICATION SUMMARIES

Caleffi Solar HD™ Heat Transfer Fluid

The closed loop hydronic system shall contain a preblended solution of Caleffi HD™ heat transfer fluid and deionized water. The concentration of solution to be 50% and provide freeze protection to -40° Fahrenheit. Must meet NSF standard, Category Code: HT1, HT2, NSF Registration No. 144912. Prior to delivery, manufacturer to provide a certificate of assurance. The solution is to contain fluorescent green dye to facilitate easy leak detection.

The systrem owner shall analyze the fluid bi-annually to ensure the glycol water solution continues to provide corrosion protection within industry standards. No chemical additions shall be made to the glycol water solution without approval of manufacturer. Should such a chemical addition be required, it will be done in accordance with the recommendations as supplied by the manufacturer. It is important that the initial fill for the purpose of hydrostatic pressure testing and/or system flushing be metered. Metering provides contractor with a precise measurement of the amount of glycol needed to fill the system but also the amount of water that could be potentially trapped inside the system. By following this protocol, it will allow for any adjustments required prior to filling system with Caleffi HD™ and ensure the glycol is in compliance with the specification.

Approved coolant manufacturers are: Caleff North America, Inc.; Caleffi HD™.

CALEFFI Hydronic Solutions

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