



Exactly your chemistry.

Going to the extreme **Antifrogen® SOL HT**

Clariant sets new limits in solar heating system protection with the addition of Antifrogen® SOL HT to its trusted family of Antifrogen® heat transfer fluids.

Designed for a permanent usage of -23 °C up to +200 °C, **Antifrogen® SOL HT** can be relied on to provide efficient, long-term corrosion and frost protection.

Its outstanding high temperature performance reduces the potential for system operating problems and associated maintenance and down-time.

According to corrosion test method ASTM D1384, the heat transfer medium protects the metals of solar heating systems against corrosion and the formation of boiler scale.

Antifrogen® SOL HT is compatible with standard metal and plastic components designated for solar heating systems, and meets the requirements of DIN 4757, part 3.

Antifrogen® SOL HT is a specially designed heat transfer fluid with superior thermal stability for highly stressed solar heating systems.

The materials normally used in solar heating systems are protected from corrosive attack for many years by special corrosion inhibitors.

- Premixed heat transfer fluid for highly stressed solar heating systems
- Based on higher-boiling glycols
- Superior thermal stability
- Permanent usage temperatures: -23 °C to +200 °C; temporary usage: up to +270 °C
- Burst resistance minimum -40 °C
- Classified in WGK 1

No evaporation = heat keeps on flowing

Developed in response to the increasing use of vacuum collectors, which have a high stagnation temperature of +270 °C and above, **Antifrogen® SOL HT** offers protection to idle systems at these temperatures and at permanent operating temperatures of up to +200 °C.

Antifrogen® SOL HT's glycols have a boiling point of over +270 °C. As a result, there is no build-up of the corrosive, salt-like residues that can occur on evaporation, particularly on collectors that are frequently idle. This is a common problem created by traditional lower boiling ethylene or commonly used propylene glycol-based heat transfer fluids that can lead to system failure.

Protection at the extremes

Antifrogen® SOL HT is premixed with deionized water to provide frost resistance down to approximately -23 °C.

Trials have shown that under central European winter conditions the formulation will not cause bursts in metal system components, thanks to the formation of slush ice when the product is cooled below the crystallization point.

Antifrogen® SOL HT is formulated with glycols and anti-corrosion additives. It is inhibited without the use of nitrites, borates and phosphates.

For more information visit www.antifrogen.com

Technical data			
Density	at 20 °C (DIN 51757)	g/cm ³	≈ 1.082
Refractive index	n _D at 20 °C (DIN 51423, part 2)		≈ 1.401
pH-value	(undiluted, DIN 51369)		≈ 9
Residual alkalinity	(ASTM D 1121)	ml c(HCl) 0.1 m	3-4
Boiling point	at 1013 mbar (ASTM D 1120)	°C	≈ 105
Pour point	(DIN 51583)	°C	≈ -28
Kinematic viscosity	at 20 °C (DIN 51562)	mm ² /s	≈ 7.4
	at 80 °C (DIN 51562)	mm ² /s	≈ 1.44
Specific heat	at 20 °C	kJ/kg·K	≈ 3.2
Thermal conductivity	at 20 °C	W/m·K	≈ 0.36
Specific electrical conductivity	at 20 °C	µS/cm	> 1000
Freezing Point	(ASTM D 1177)	°C	≈ -23

www.clariant.com
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1/2010

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1/2010

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