PG AL SAFE
Heat Transfer Fluid
Technical Data Sheet

Product Overview

Aluminum Safe Heat Transfer Fluids are fully formulated virgin propylene glycol-based heat transfer fluids containing a specially designed extended life inhibitor package that controls corrosion of metals, especially aluminum, copper and stainless steel. **SOLUTHERM™ PG AL SAFE** helps prevent scaling, and the fouling of heat transfer surfaces and maintains them in the optimum temperature operating range. **SOLUTHERM™ PG AL SAFE** is specifically formulated to maintain the pH of the fluid within the Aluminum Safe Zone throughout the recommended operating temperature range of -50°F to 250°F (-45.5°C to 121.1°C) when mixed with appropriate water concentrations. It provides both freeze and burst protection for systems exposed to very low temperatures.

Product Technical Information

SOLUTHERM™ PG AL SAFE inhibited virgin propylene glycol-based heat transfer fluid is manufactured with the highest quality raw materials. Each fluid is specially formulated with state-of-the-art inhibitor chemistry that prevents corrosion, which minimizes fluid expense and extends fluid life. **SOLUTHERM™** fluid is silicate, nitrite, phosphate, and borate free and meets ASTM standard for corrosion protection of Aluminum and Copper; and is available in dilutions ranging from 30% to 70% PG. Please note that we recommend diluting only with RO (reverse osmosis) or distilled water to maintain corrosion protection.

Performance Features and Benefits

- Fluid is dyed blue for leak detection purposes
- Specially formulated for aluminum and copper
- Extended life inhibitor package
- Meets the Heat Transfer Fluid ASTM D8039 and ASTM D3306 performance standards for multi-metal and Aluminum Heat rejection corrosion protection when a minimum of 30% is used
- Available in concentrate and dilutions of 30% to 70%
- Operating temperature of -50°F to 250°F (-45.5°C to 121.1°C)

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Product Use

SOLUTHERM™ PG AL SAFE is intended for use in processing applications that contain aluminum or copper metal areas where a propylene glycol-based coolant is required. Before initial fill with **PG AL SAFE**, the system should be prepared by an appropriate flushing procedure followed by complete removal of flushing fluid.

Once filled, it is natural for **PG AL SAFE** thermal management fluid inhibitor levels to slowly depreciate over time. The fluid may be maintained in the system for up to 10 years with proper fluid monitoring and the addition of recommended boosters and treat rates provided by our fluid analysis program.

Storage and Disposal

Store **SOLUTHERM™ PG AL SAFE** in the original container in a cool, dry environment away from direct sunlight. When properly stored, the product is suitable for use for up to 5 years after manufacture. Do not use galvanized steel for storage or handling systems. Refer to SDS for product safety information. Discard unused or end of life product in accordance with local, regional, or national regulations.

Specifications

The corrosion inhibitor package in **SOLUTHERM™ PG AL SAFE** Heat Transfer Fluid is designed to meet and exceed the following specifications:

- ASTM D8039

- ASTM D3306

PRODUCT OFFERING INCLUDES:

TYPICAL PROPERTIES	SOLUTHERM™ PG AL SAFE Concentrate	SOLUTHERM™ PG AL SAFE 70	SOLUTHERM™ PG AL SAFE 60	SOLUTHERM™ PG AL SAFE 50	SOLUTHERM™ PG AL SAFE 40	SOLUTHERM™ PG AL SAFE 30
Propylene glycol % weight	94%	70%	60%	50%	40%	30%
Corrosion inhibitors and water % weight	6%	30%	40%	50%	60%	70%
Colour	Blue					
ASTM Specification	D8039, D3306					
pH of solution	Depending on dilution	7.8-8.8	7.8-8.8	7.8-8.8	7.8-8.8	7.8-8.8
Pounds per gallon 68°F (20°C)	8.73	8.76	8.74	8.71	8.65	8.58
Boiling point	Depending on dilution	230°F (110°C)	225°F (107°C)	222°F (106°C)	219°F (104°C)	216°F (102°C)
Freezing point	Depending on dilution	Below -60°F (-51.1°C)	<-60°F (<-51.1°C)	-28°F (-33.6°C)	-7°F (-21.4°C)	8°F (-13.0°C)

SOLUTHERM™ THERMAL MANAGEMENT SOLUTIONS

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