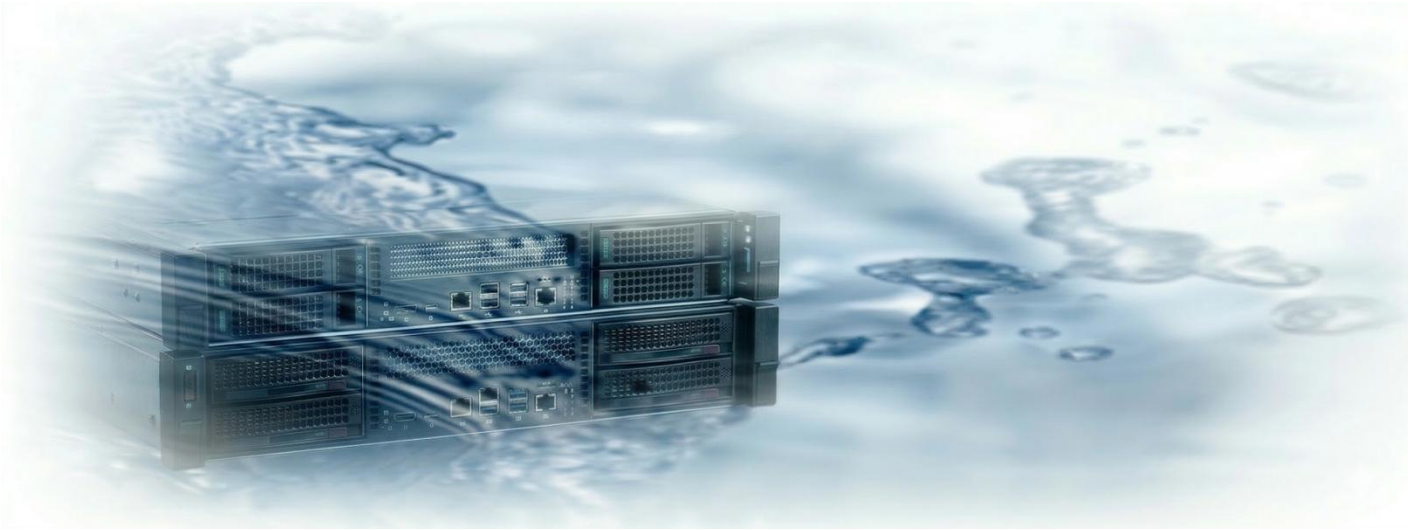


Technical Data Sheet



SOLARBRINE® EG Series

A high-performance heat transfer fluid with effective anti-corrosion and anti-freeze properties for long-term protection of the system circuit.



SOLAR APPLIED MATERIALS TECHNOLOGY CORP.

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TECHNICAL DATA SHEET

SOLARBRINE® EG Series

High-Performance Green Energy Coolant and Thermal Transfer Fluid

1. PRODUCT OVERVIEW

SOLARBRINE® EG series products are ready-to-use propylene glycol-based thermal management fluids designed to meet the unique needs of direct liquid cooling (DLC) applications in data centers, supercomputers, and the IT industry. Engineered with eco-friendly corrosion inhibitors and anti-freeze additives, it provides long-term protection and stability for a wide range of cooling systems.










SOLAR APPLIED MATERIALS TECHNOLOGY CORP. is an official partner of Intel. SOLARBRINE has been selected as the coolant used in Intel's SuperFluid Technology (SuperFluid Advanced Cooling Reference Solutions – Single-Phase Partner Solutions for Ecosystem Scaling).

You can download the Partner Solutions documentation from the following link:

🔗 Please download the Partner Solutions documentation from the following URL. <https://cdrdv2.intel.com/v1/dl/getContent/787148>



2. KEY FEATURES

Icon	Feature	Description
	Corrosion Protection	Multi-metal protection under high and low temperatures, effective on copper, brass, aluminum alloys, and stainless steel.
	Low Foam Tendency	Extremely low foaming characteristics ensure stable performance under high-speed flow and turbulence.
	Rubber Compatibility	Stable with EPDM, silicone, and fluororubber components.
	Advanced OAT Formula	Organic Acid Technology (OAT) inhibitor system — phosphate-free formulation for long-lasting, environmentally safe performance.
	Neutral pH Balance	Formulated to maintain a nearly neutral pH range, minimizing material stress and maximizing system life.
	Freeze Resistance	Protects systems down to -10°C , ensuring reliable operation in cold climates.
	Eco-Friendly & Safe	Non-toxic propylene glycol base with minimal environmental impact.
	Ready-to-Use Formula	Pre-diluted with distilled water for optimal performance; no dilution required.
	Easy Maintenance	Periodic replacement ensures long-term stability depending on system temperature and environment.

3. STORAGE & SAFETY

- **Storage:** Store in a cool, dry place away from direct sunlight.
- **Safety:** Detailed hazard and safety information are available in the **SDS (Safety Data Sheet)**, updated annually.

Certifications:

- ISO 9001 – Quality Management System
 - ISO 14001 – Environmental Management System
 - ISO 45001 – Occupational Safety Management System
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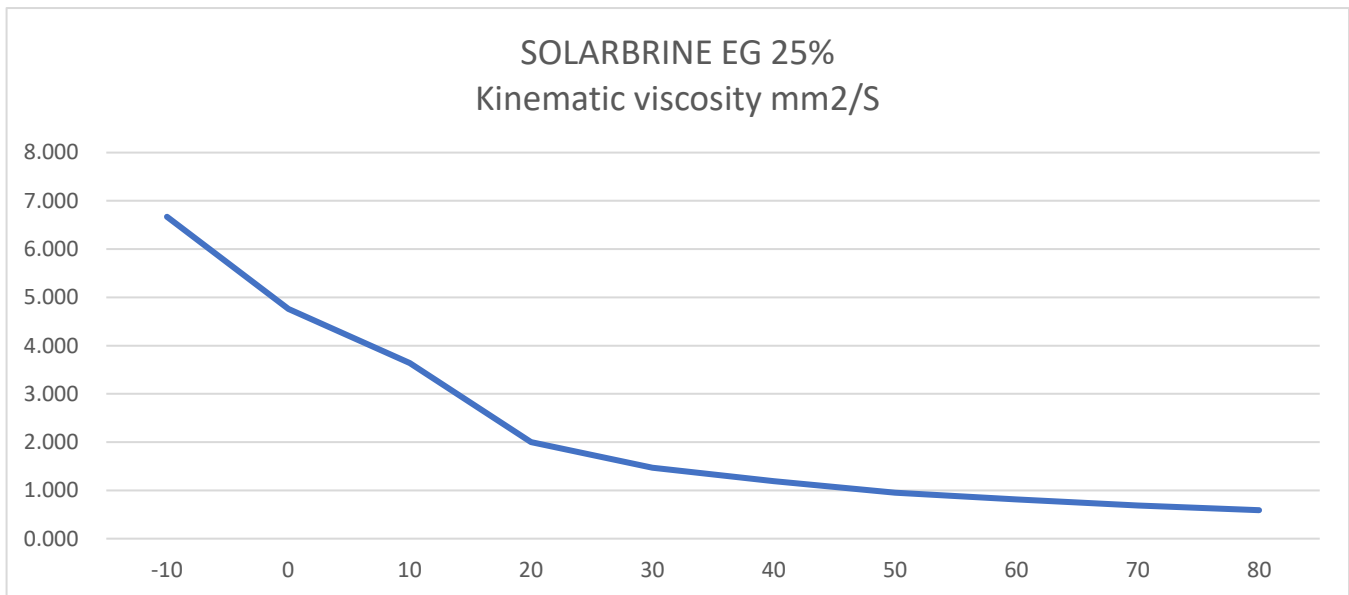
4. TECHNICAL SPECIFICATIONS

No.	Test Item		Specification	Results
1	Appearance		clear and transparent liquid · no sediment and suspended matter	pass
2	Color		It has a distinct color	Green
3	Odor		No pungent odor	pass
4	pH value		7.5~11.0	8.46
5	Density (20°C) g/cm ³		1.038±0.01	1.0393
6	Boiling point/°C		102~106	106
7	Reserve alkalinity /mL		Report	2.58
8	Refractive index		≥1.36200	1.36441
9	Freezing point/°C		-10~ -13.5	-13
10	Foaming Tendency 88°C	Volume /mL	≤150	30
		Break time /s	≤5.0	0.9
11	Conductivity μs/cm 25°C		Report	5100
12	Corrosion in glassware 88±2°C ,336±2h	The mass change mg /piece	Copper ±10	0.1
			Solder ±30	1.4
			Brass ±10	-0.3
			Carbon steel ±10	-0.4
			304 steel ±10	-1.4
			316L Steel ±10	-1.3
			1060Aluminum alloy ±10	4.1
			6061Aluminum alloy ±10	6.2
		The appearance of liquid no obvious change after test	Pass	
13	Effect on rubber 88±2°C 336±2h	Silicone rubber	The mass change % ±3.0	-0.2
			The hardness change IRHD ±5	-1
			Volume change % ±5	-0.2
		EPDM	The mass change % ±3.0	1.1
			The hardness change IRHD ±5	1
			Volume change % ±5	1.2
		Fluoro rubber	The mass change % ±5.0	3.5
			The hardness change IRHD ±10	8
			Volume change % ±15	6.9

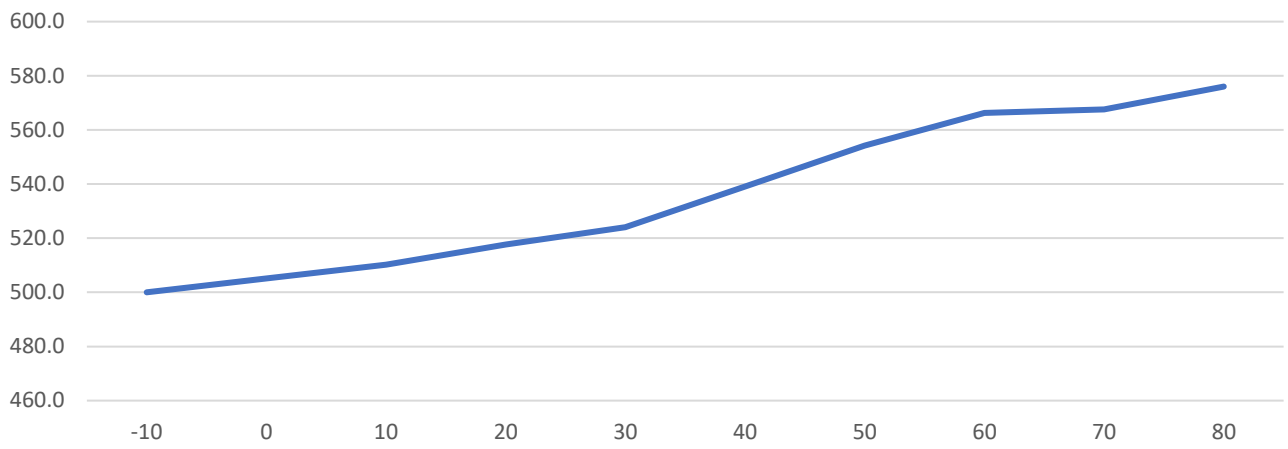
14	Effect on plastics mg/cm ² 88±2°C, 336±2h	Polytetrafluoroethylene plastic PTFE	±1.0	0.15
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SOLARBRINE® EG series Physical Property

T (°C)	-10	0	10	20	30	40	50	60	70	80
SOLARBRINE EG 25% Kinematic viscosity mm ² /S	6.670	4.760	3.640	2.000	1.470	1.190	0.950	0.810	0.690	0.590
SOLARBRINE EG 25% Thermal conductivity mW/m.K	500.0	505.1	510.2	517.6	524.1	539.1	554.2	566.3	567.5	576.0
SOLARBRINE EG 25% Specific heat kJ/kg.K	3.73	3.75	3.76	3.81	3.83	3.86	3.88	3.89	3.89	3.9



SOLARBRINE EG 25%
Thermal conductivity mW/m.K



SOLARBRINE EG 25%
Specific heat kJ/kg.K

