

THERMAL MANAGEMENT USING TECHSPRAY SOLVENTS

TECHSPRAY HEAT TRANSFER FLUIDS OFFER MANY ADVANTAGES

Techspray engineered heat transfer liquids designed for thermal management in demanding environments. They offer:

- Non-flammability
- Excellent dielectric properties
- Low toxicity
- Zero ozone depletion potential (ODP)
- Low global warming potential (GWP)
- Wide boiling point range for different cooling methods (single-phase vs. two-phase)
- Low pour point for cold environments

Key Applications

- Data Centers & HPC: Immersion cooling for servers and GPUs
- Semiconductor Manufacturing: Ion implanters, etching tools
- Power Electronics: EV batteries, transformers, inverters
- Medical Imaging: MRI cooling systems
- Industrial Processes: Chemical reactors, pharmaceutical freeze-drying
- Renewable Energy: Organic Rankine Cycle systems



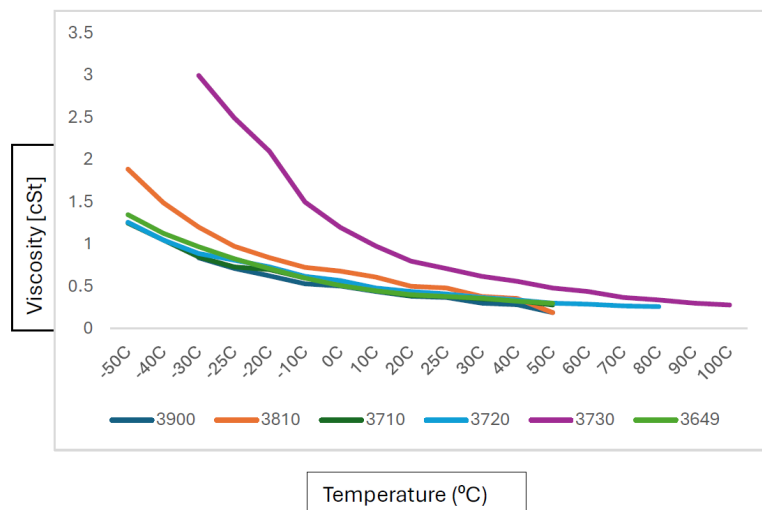
Precision-V Solvent 3810



Precision-V Solvent 3900

THERMOPHYSICAL PROPERTIES

Precision -V solvents Kinematic viscosity [cSt] Vs Temperature Curve



HEAT TRANSFER FLUIDS AND PROPERTIES

SPECIFICATIONS	PRECISION-V 3810	PRECISION V 3900	PRECISION-V 3649	PRECISION-V 3752	NOVEC 7100 PRECISION- V 3710	NOVEC 7200 PRECISION- V 3720	NOVEC 7300 PRECISION- V 3730
Boiling point	133°F / 56°C	122°F / 50°C	120.2°F / 49°C	107.2°C	142°F / 61°C	169°F / 76°C	208°F / 98°C
Cleaning strength	Light duty	Light duty	Light duty	Light duty	Light duty	Light duty	Light duty
Dielectric strength (kV)	40	16	>40	40	>25	>25	>25
Operating temp °C	-90 °C to 56 °C	-39 °C to 50 °C	-75 °C to 40 °C	109 °C to 107.2 °C	-104°C to 50°C	-108°C to 65°C	-30°C to 85°C
Liquid density (g/ml)	1.47	1.39	1.6	1.7375	1.52	1.43	1.66
Surface tension (dynes/cm)	16	15.11	10.8	14.2	14	14	15
Heat of vaporization kj/kg	163	171	88	72.57	112	119	102
Kinematic viscosity cSt	0.44	0.33	0.40	1.32	0.38	0.41	0.71
Specific heat / heat capacity J/kg-K	1260	1337	1103	865	1183	1220	1140
Liquid thermal conductivity W/m-k	0.089	0.151	0.059	0.069	0.069	0.068	0.063
Flash point	none	None	None	None	none	none	none
Plastic elastomer compatibility	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Vapor pressure (mmHg)	235	270	300	38	202	109	45
Ozone depletion potential (ODP)	0	0	0	0	0	0	0
Global warming potential (GWP)	540	27	1	420	320	55	200

We are confident that Techspray™ has the right solution for your heat transfer and heat management application. To learn more about Techspray™ solvents, visit www.techspray.com

Safety Data Sheet: Consult Safety Data Sheet before use.

Regulatory: For regulatory information about this product, contact your Techspray representative.

Technical Information: Techspray® products are supported by global sales, technical and customer services resources. For additional technical information on this product or other Techspray® products in the United States, call the technical sales department at 800-858-4043, email tsales@techspray.com or visit our web site at: www.techspray.com. Important Notice to Purchaser/User: The information in this publication is based on tests that we believe are reliable. The results may vary due to differences in tests type and conditions. We recommend that each user evaluate the product to determine its suitability for the intended application. Conditions of use are outside our control and vary widely. Techspray's only obligation and your only solution is replacement of product that is shown to be defective when you receive it. In no case will Techspray® be liable for any special, incidental, or consequential damages based on breach of warranty, negligence or any other theory.



www.techspray.com
 8125 Cobb Center Dr. Kennesaw, GA USA 30152
 770-424-4888 | 800-645-5244; Email: info@itwcce.com