

390 SCHULTZ[®]

Synthetic Heat Transfer Fluid

Ultrahigh temperature / low pressure
liquid phase heat transfer fluid

-10°C~390°C





One Of The World Top Three Synthetic High Temperature Heat Transfer Fluid Manufacturers

ABOUT US



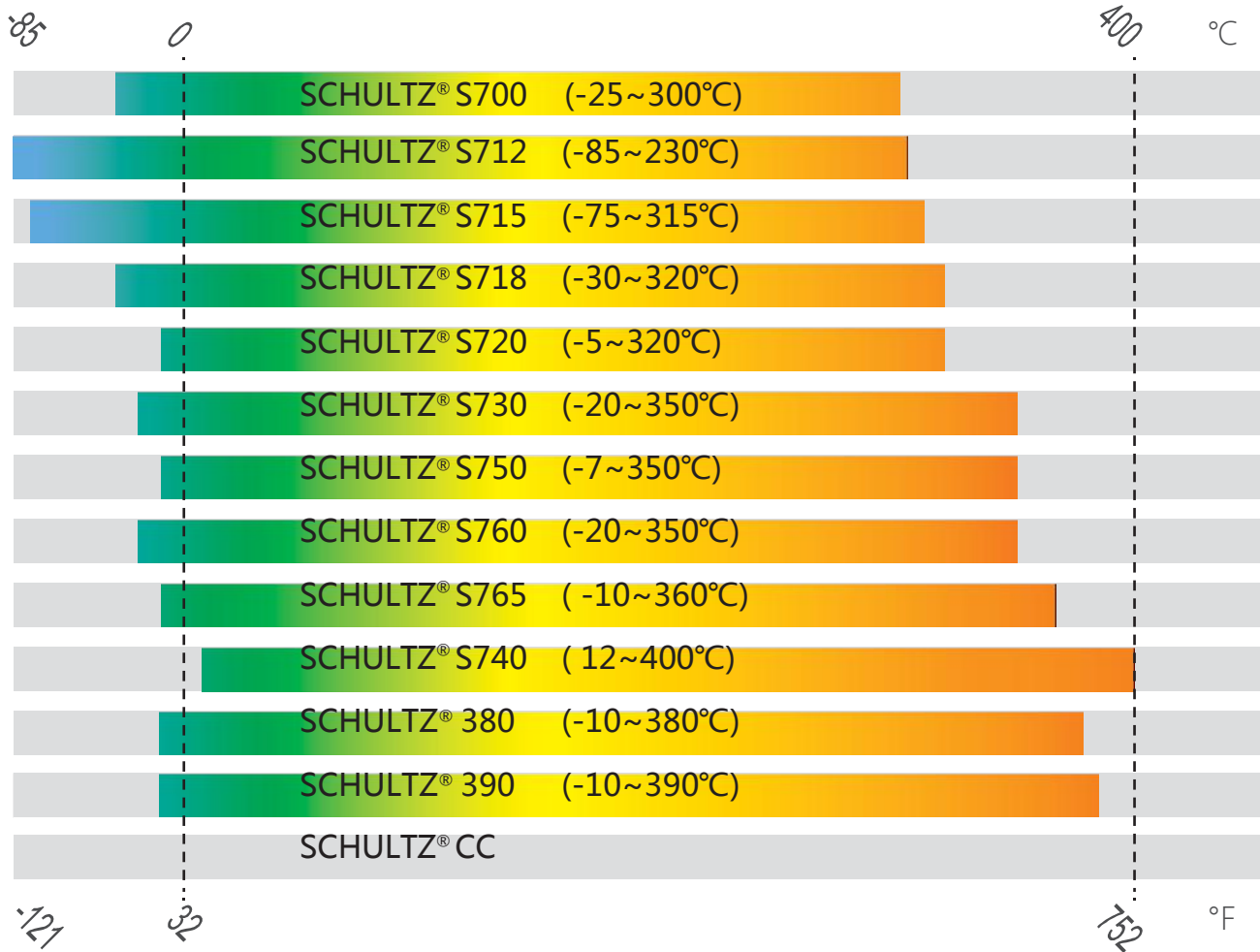
Schultz Canada Chemicals Ltd, located in Vancouver, Canada and founded in September 2013, is one of the top three manufacturers of super high temperature synthetic heat transfer fluids in the world, specializing in global marketing of SCHULTZ® synthetic heat transfer fluids and DYNOVA® functional chemicals.

Over years of development, Schultz Canada Chemicals has become a highly vertically integrated company and built the affiliate, Schultz Asia Pacific (Shanghai) Chemical Co., Ltd, in Shanghai, China and the production base, Jiangsu Zhongneng Chemical Technology Co., Ltd, in Lianyungang, China.

Devoting to high-end research and development of synthetic heat transfer fluids, Schultz Canada Chemicals combines the power of science and technology for innovation to extract value from the interaction of functional chemicals. With the extension of its product chain using renewable material structures, the trend of the Schultz high-value products to substitute similar products is recognized by end users worldwide. Our goal is to help reduce the processing cost and increase the advantage for our customers.

With the rapid expansion of global market, our sales network has spread to 8 countries and regions including Europe, North America and Asia. Quality, safety and environmental sustainability are the main elements of the vision of our products. The family of SCHULTZ® synthetic heat transfer fluids and DYNOVA® functional chemicals offers a wide range of options, making it easy to find the right product that helps you meet your application.

SCHULTZ® PRODUCT



360° COMPREHENSIVE TECHNOLOGY SERVICE

Schultz Canada Chemicals Ltd provides the 360° comprehensive full life cycle service model.

System Support Advices: Provide advices of new system design, old system energy saving reconstruction, fluid flush, daily maintenance and system debugging.

- 1 Fluid Recommendation: Provide system economical assessment and fluid recommendation based on customers' applications.
- 2 World-leading Testing System: The first domestic company equipped with the thermal stability tester.
- 3 Sample Analysis: Services including sample analysis, accident analysis and suggestions are provided with the professionalism and sincerity.
- 4 Quick Response: Team headed by over 30 years of experience engineers will solve any problems occurring in customer fluid applications.



- 5 Logistics & Inventory: The strong warehouse logistics and safety inventory satisfy customers emergency supply request.

SCHULTZ® PRODUCT INTRODUCTION



SCHULTZ® 390 is an ultrahigh temperature liquid phase heat transfer fluid with excellent thermal stability. Its maximum operation temperature is 390°C. Comparing with other ultrahigh temperature fluids, SCHULTZ® 390 has lower pour point that is

-35°C, which decreases the costs of anti-freezing facility of system. SCHULTZ® 390 is the same product as Therminol 73 and can be mixed together in any ratio.



PRODUCT FEATURES



Outstanding Thermal Stability

SCHULTZ® 390 is the liquid phase heat transfer fluid with excellent performance. It has strong heat resistance ability and can provide stable and reliable heat transfer in -10°C~390°C operation for long-term.

Good Cost Performance

The pour point of SCHULTZ® 390 is lower than other super high temperature fluid and reaches to -35°C. There are no worries of fluid freezing even in the cold areas, decreasing the investment of system anti-freezing cost.

Low Vapor Pressure

SCHULTZ® 390 has extremely low vapor pressure. Its saturated vapor pressure is only 0.80MPa at the temperature of 390°C.

Anti-coking

SCHULTZ® 390 is synthesized by chemical refining which effectively reduces the generation of coking and solid particles, increasing system operation safety.

TYPICAL DATA



Appearance	Light Yellow Transparent Liquid
Component	Synthetic Hydrocarbon Mixture
Flash Point / °C	120
Autoignition Temperature / °C	> 585
Pour Point / °C	< -35
Boiling Point(1013mBar) / °C	262
Density (20°C) / (kg/m ³)	1070
Acid Number(KOH) / (mg/g)	0.01
Moisture Content / (mg/kg)	< 200
Kinematic Viscosity (40°C)/ (mm ² /s)	4.08
Average Molecular Weight	180
Coefficient of Thermal Expansion (200°C) / °C	0.000968
Chlorine / (mg/kg)	< 10
Maximum Bulk Temperature / °C	390
Maximum Film Temperature / °C	420

Note: The above data is based on experimental samples and not all the products are the same. The above data is not used as business indicators.

Physical Properties of SCHULTZ® 390



Temperature	Density	Thermal Conductivity	Specific Heat	Viscosity	Vapor Pressure
°C	kg/m ³	W/m·k	kJ/kg·k	cP	kPa
0	1088	0.1408	1.50	39.1	0.65
20	1070	0.1384	1.55	8.56	0.90
40	1052	0.1362	1.60	4.31	1.25
60	1034	0.1338	1.66	2.63	1.80
80	1016	0.1314	1.72	1.80	2.56
100	998	0.1290	1.77	1.30	3.70
120	981	0.1265	1.82	1.02	5.41
140	962	0.1241	1.88	0.80	8.07
160	944	0.1214	1.94	0.64	12.2
180	924	0.1188	1.99	0.54	18.7
200	908	0.1162	2.04	0.44	28.5
220	890	0.1133	2.10	0.39	43.0
240	872	0.1105	2.15	0.33	64.3
260	854	0.1078	2.20	0.28	94.6
280	836	0.1047	2.26	0.26	135
300	820	0.1016	2.31	0.23	195
320	800	0.0986	2.37	0.21	270
340	781	0.0952	2.42	0.18	376
360	760	0.0919	2.47	0.16	515
380	740	0.0886	2.53	0.15	690
390	729	0.0869	2.57	0.14	805

PRODUCT APPLICATION

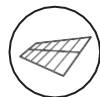


SCHULTZ® 390 is widely used in following fields due to its excellent performance:



Solar Thermal Energy

The good performance of thermal stability and low vapor pressure of SCHULTZ® 390 satisfies the high temperature requirement of solar thermal energy system.



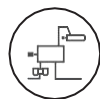
Polysilicon Industry

The process of chemical synthesis of silicon tetrachloride requires heat transfer fluid to cool down and keep the temperature around 350°C. SCHULTZ® 390 provides stable environment temperature for polysilicon synthesis due to its superior thermal stability.



Petroleum Refining

SCHULTZ® S390 is used for light hydrocarbon separation and regeneration gas heating applications in high temperature system. SCHULTZ® S390 is chosen by many customers for its efficient and reliable stability.



Polyester and Chemical Fiber

SCHULTZ® S390 can totally satisfy the requirement of polyester spinning technology's 330°C operation temperature.



Fluorosilicon Industry

The inorganic fluorosilicon synthesis process requires temperature above 330 °C. SCHULTZ® 390 can provide high efficient heat support in low pressure environment and it has longer service life, decreasing capital cost effectively.



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