

ShellSol® D70

TECHNICAL DATASHEET

Aliphatic Mineral Spirits
 SICC Product Code: Q7712
 CAS Registry Number: 64742-47-8
 EC Number: 926-141-6

Description

ShellSol® D70 consists predominantly of C₁₁-C₁₄ paraffins and naphthenes. Deep hydrogenation gives this solvent a very low aromatic content and a negligible amount of reactive impurities.

Typical Physical Properties

Property	Unit	Value	Method
Density @ 15°C	kg/l	0.804	ASTM D4052
Coefficient of Cubic Expansion @ 20°C	10 ⁻⁴	9	calculated
Refractive Index @ 20°C	-	1.443	ASTM D1218
Colour	Saybolt	+30	ASTM D156
Bromine index	mg Br/100g	<10	ASTM D1492
Copper Corrosion (1hr @ 100°C)	-	1	ASTM D130
Doctor Test	-	Negative	ASTM D4952
Non-Volatile Matter	mg/100 ml	1	ASTM D1353
Distillation, Initial Boiling Point	°C	218	ASTM D86
Distillation, Dry Point	°C	237	ASTM D86
Relative Evaporation rate (nBuAc=1)	-	0.01	ASTM D3539
Antoine Constant A [#]	kPa, °C	5.99080	-
Antoine Constant B [#]	kPa, °C	1753.00	-
Antoine Constant C [#]	kPa, °C	221.030	-

Notes:

#: In the Antoine temperature range, the vapor pressure P (kPa) at temperature T (°C) can be calculated by means of the Antoine equation:
 $\log P = A - B/(T+C)$.



Typical Physical Properties

Property	Unit	Value	Method
Antoine Constants: Temperature range	°C	+80 to +215	-
Vapor Pressure @ 0°C	kPa	0.01	Calculated
Vapor Pressure @ 20°C	kPa	0.05	Calculated
Saturated Vapor Concentration @ 20°C	g/m ³	4	Calculated
Paraffins	%m/m	50	GC
Naphthenes	%m/m	50	GC
Aromatics	mg/kg	< 100	SMS 2728
Benzene	mg/kg	< 3	GC
Sulfur	mg/kg	< 0.5	ISO 20846
Flashpoint	°C	78	ASTM D93
Lower Explosion Limit in Air	%v/v	0.6	-
Upper Explosion Limit in Air	%v/v	5.5	-
Auto Ignition Temperature	°C	236	ASTM E659
Electric Conductivity @ 20°C	pS/m	< 1	ASTM D4308
Dielectric constant @ 20°C	-	2.1	-
Aniline Point	°C	77	ASTM D611
Kauri-Butanol value	-	29	ASTM D1133
Pour Point	°C	< -50	ASTM D97
Viscosity @ 25°C	mm ² /s	2.4	ASTM D445
Surface Tension @ 20°C	mN/m	26	Du Nouy ring
Thermal Conductivity @ 20°C	W/m/°C	0.14	-
Hildebrand Solubility Parameter	(cal/cm ³) ^{1/2}	7.6	-
Hydrogen Bonding Index	-	0	-
Fraction Polarity	-	0	-
Heat of Vaporization at T _{boil}	kJ/kg	250	-
Heat of Combustion (Net) @t 25°C	kJ/kg	45000	-
Specific Heat @ 20°C	kJ/kg/°C	2.0	-
Molecular Weight	g/mol	174	Calculated



Test Methods

Copies of copyrighted test methods can be obtained from the issuing organisations:

- American Society for Testing and Materials (ASTM)
- International Organization for Standardization (ISO)
- Deutsches Institut für Normung (DIN)

Shell Method Series (SMS) methods are issued by Shell Global Solutions International B.V., Shell Technology Centre, Amsterdam, The Netherlands. Requests for copies of SMS can be made through your local Shell Chemicals company.

N.B: For routine quality control local test methods may be applied. Such methods have been validated against those mentioned in this datasheet.

Quality

ShellSol® D70 does not contain detectable quantities of polycyclic aromatics, heavy metals or chlorinated compounds.

Hazard Information

For detailed Hazard Information please refer to the Safety Data Sheet.

Access Safety Data Sheets here: [Safety Data Sheets](#)

Storage and Handling

Provided proper storage and handling precautions are taken we would expect ShellSol® D70 to be technically stable for at least 12 months. For detailed advice on Storage and Handling please refer to the Safety Data Sheet

Shell Warranties

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