



## Data Sheet

**Issued:**

23-Nov-2007

**Product Name**

# ShellSol D90

**Product Code**
**Q7726          Europe**
**Product Category**
**Aliphatics**
**CAS Registry Number**

64742-47-8

**EINECS Number**

265-149-8

**Description**

ShellSol D90 consists predominantly of C12- C16 paraffins and naphthenes. Deep hydrogenation gives this solvent a very low aromatic content, negligible amount of reactive impurities and a low, sweet odour.

**Typical Properties**

Property	Unit	Method	Value
Density @15°C	kg/l	ASTM D4052	0.795
Cubic Expansion Coefficient @20°C	(10 <sup>-4</sup> )/°C	Calculated	9
Refractive Index @20°C	-	ASTM D1218	1.440
Color	Saybolt	ASTM D156	+17
Bromine Index	mg Br/100g	ASTM D1492	< 10
Copper Corrosion (3hr @100°C)	-	ASTM D130	1
Doctor Test	-	ASTM D235	Negative
Distillation, IBP	°C	ASTM D86	219
Distillation, EP	°C	ASTM D86	274
Relative Evaporation Rate (nBuAc=1)	-	ASTM D3539	< 0.01
Relative Evaporation Rate (Ether=1)	-	DIN 53170	> 3900
Antoine Constant A #	kPa, °C	-	7.76180
Antoine Constant B #	kPa, °C	-	2999.61
Antoine Constant C #	kPa, °C	-	289.400
Antoine Constants: Temperature range	°C	-	+20 to +120
Vapor Pressure @0°C	kPa	Calculated	< 0.01
Vapor Pressure @20°C	kPa	Calculated	0.01
Saturated Vapor Concentration @20°C	g/m <sup>3</sup>	Calculated	0.9
Paraffins	% m/m	GC	60
Naphthenes	% m/m	GC	40
Aromatics	mg/kg	SMS 2728	< 200
Benzene	mg/kg	GC	< 3
Sulfur	mg/kg	SMS 1897	< 0.5

Flash Point	°C	ASTM D93	92
Auto Ignition Temperature	°C	ASTM E659	231
Explosion Limit: Lower	%v/v	-	0.6
Explosion Limit: Upper	%v/v	-	5.5
Electrical Conductivity @20°C	pS/m	-	< 1
Aniline Point	°C	ASTM D611	80
Kauri-Butanol Value	-	ASTM D1133	27
Pour Point	°C	ASTM D97	-30
Surface Tension @20°C	mN/m	Du Nouy ring	26
Viscosity @25°C	mm <sup>2</sup> /s	ASTM D445	2.6
Viscosity @40°C	mm <sup>2</sup> /s	ASTM D445	2.0
Hildebrand Solubility Parameter	(cal/cm <sup>3</sup> ) <sup>1/2</sup>	-	7.6
Hydrogen Bonding Index	-	-	0
Fractional Polarity	-	-	0
Heat of Vaporization @Tboil	kJ/kg	-	250
Heat of Combustion (Net) @25°C	kJ/kg	-	45000
Specific Heat @20°C	kJ/kg/°C	-	1.9
Thermal Conductivity @20°C	W/m/°C	-	0.14
Molecular Weight	g/mol	Calculated	190

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

## Test Methods

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

American Society for Testing and Materials (ASTM) : [www.astm.org](http://www.astm.org)  
 Deutsches Institut für Normung (DIN) : [www.din.de](http://www.din.de)

Shell Method Series (SMS) methods are issued by Shell Global Solutions International B.V., Shell Research and Technology Centre, Amsterdam, The Netherlands. Copies of SMS can be obtained through your local Shell Chemicals company.

For routine quality control analyses, local test methods may be applied that are different from those mentioned in this datasheet. Such methods have been validated and can be obtained through your local Shell Chemicals company.

## Quality

ShellSol D90 does not contain detectable quantities of polycyclic aromatics, heavy metals or chlorinated compounds.

## Hazard Information

For detailed Hazard Information please refer to the Material Safety Data Sheet on [www.shell.com/chemicals](http://www.shell.com/chemicals).

## Storage and Handling

Provided proper storage and handling precautions are taken we would expect ShellSol D90 to be technically stable for at least 12 months. For detailed advice on Storage and Handling please refer to the Material Safety Data Sheet on [www.shell.com/chemicals](http://www.shell.com/chemicals).

**Warranty**

All products purchased or supplied by Shell Chemicals are subject to terms and conditions set out in the contract, order acknowledgment and/or bill of lading. Shell Chemicals warrant that their product will meet those specifications designated as such herein or in other publications. All other information including that herein, supplied by Shell Chemicals is considered accurate but is furnished upon the express condition that the customer shall make its own assessment to determine the products' suitability for a particular purpose. Shell Chemicals make no other warranty either expressed or implied, regarding such other information, the data upon which the same is based, or the results to be obtained from use thereof; that any products shall be merchantable or fit for any purpose; or that the use of such other information or product will not infringe any patent.

The expression 'Shell Chemicals' refers to the companies of the Shell Group that are engaged in chemical businesses. Each of the companies that make up the Shell Group of companies is an independent entity and has its own separate identity.

**Trademark**

ShellSol is a Shell Trademark.