Shell Chemicals

Data Sheet

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Product Name

ShellSol D70

Product Code **Q7712** **Europe**

Product Category **Aliphatics**

CAS Registry Number 64742-47-8

EINECS Number 265-149-8

Description

ShellSol D70 consists predominantly of C11- C14 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	0.789
Cubic Expansion Coefficient @20°C	(10^-4)/°C	Calculated	9
Refractive Index @20°C	-	ASTM D1218	1.436
Color	Saybolt	ASTM D156	+30
Bromine Index	mg Br/100g	ASTM D1492	< 10
Copper Corrosion (3hr @100°C)	-	ASTM D130	1
Doctor Test	-	ASTM D235	Negative
Non Volatile Matter	mg/100ml	ASTM D1353	1
Distillation, IBP	°C	ASTM D86	198
Distillation, EP	°C	ASTM D86	242
Relative Evaporation Rate (nBuAc=1)	-	ASTM D3539	0.01
Relative Evaporation Rate (Ether=1)	-	DIN 53170	800
Antoine Constant A #	kPa, °C	-	5.99080
Antoine Constant B #	kPa, °C	-	1753.00
Antoine Constant C #	kPa, °C	-	221.030
Antoine Constants: Temperature range	°C	-	+80 to +215
Vapor Pressure @0°C	kPa	Calculated	0.01
Vapor Pressure @20°C	kPa	Calculated	0.05
Saturated Vapor Concentration @20°C	g/m³	Calculated	4
Paraffins	% m/m	GC	60
Naphthenes	% m/m	GC	40
Aromatics	mg/kg	SMS 2728	< 100
Benzene	mg/kg	GC	< 3

Sulfur	mg/kg	SMS 1897	< 0.5
Flash Point	°C	ASTM D93	74
Auto Ignition Temperature	°C	ASTM E659	236
Explosion Limit: Lower	%v/v	-	0.6
Explosion Limit: Upper	%v/v	-	5.5
Electrical Conductivity @20°C	pS/m	-	< 1
Dielectric Constant @20°C	-	-	2.1
Aniline Point	°C	ASTM D611	77
Kauri-Butanol Value	-	ASTM D1133	29
Pour Point	°C	ASTM D97	< -50
Surface Tension @20°C	mN/m	Du Nouy ring	26
Viscosity @25°C	mm^2/s	ASTM D445	2.0
Hildebrand Solubility Parameter	$(cal/cm^3)^{\wedge}½$	-	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	-	2.0
Thermal Conductivity @20°C	W/m/°C	-	0.14
Molecular Weight	g/mol	Calculated	174

(#) 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
Deutsches Institut für Normung (DIN) : www.din.de

Shell Method Series (SMS) methods are issued by Shell Golabl 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 D70 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.

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 Material Safety Data Sheet on www.shell.com/chemicals.

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