Shell Chemicals

ShellSol® A100 – Low Cumene

TECHNICAL DATASHEET

Aromatic Solvents
SICC Product Code: Q7591
CAS Registry Number: 64742-95-6
EC Number: 918-668-5

Description

ShellSol® A100 – Low Cumene is a C9 aromatic hydrocarbon solvent with a reduced concentration of Cumene.

Typical Physical Properties

Property	Unit	Value	Method
Density @ 15°C	**kg/l**	**0.881**	**ASTM D4052**
Coefficient of Cubic Expansion @ 20°C	**10^{-4}**	**9**	**calculated**
Refractive Index @ 20°C	**-**	**1.5045**	**ASTM D1218**
Colour	**Saybolt**	**+30**	**ASTM D156**
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**	**169**	**ASTM D86**
Distillation, Dry Point	**°C**	**180**	**ASTM D86**
Relative Evaporation rate (nBuAc=1)	**-**	**0.20**	**ASTM D3539**
Antoine Constant A#	**kPa, °C**	**6.74780**	**-**
Antoine Constant B#	**kPa, °C**	**1912.9**	**-**
Antoine Constant C#	**kPa, °C**	**240.330**	**-**
Antoine Constants: Temperature range	**°C**	**+20 to +160**	**-**

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).

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Typical Physical Properties

Property	Unit	Value	Method
Vapor Pressure @ 0°C	kPa	0.06	Calculated
Vapor Pressure @ 20°C	kPa	0.25	Calculated
Saturated Vapor Concentration @ 20°C	g/m^3	13	Calculated
Aromatics	% m/m	> 99	GC
Benzene	mg/kg	< 3	GC
Cumene	% m/m	< 0.09	GC
Xylene	% m/m	< 0.09	GC
Sulfur	mg/kg	< 0.5	ISO 20846
Flashpoint	°C	49	IP 170
Lower Explosion Limit in Air	%v/v	0.6	-
Upper Explosion Limit in Air	%v/v	7.0	-
Auto Ignition Temperature	°C	507	ASTM E659
Electric Conductivity @ 20°C	pS/m	< 10	ASTM D4308
Dielectric constant @ 20°C	-	2.4	-
Aniline Point, Mixed	°C	14	ASTM D611
Kauri-Butanol value	-	90	ASTM D1133
Pour Point	°C	< -30	ASTM D97
Viscosity @ 25°C	mm^2/s	0.9	ASTM D445
Surface Tension @ 20°C	mN/m	29	Du Nouy ring
Hildebrand Solubility Parameter	$(cal/cm^3)^{1/2}$	8.8	-
Hydrogen Bonding Index	-	5.0	-
Fraction Polarity	-	0.001	-
Heat of Vaporization at T_{boil}	kJ/kg	325	-
Heat of Combustion (Net) @t 25°C	kJ/kg	42000	-
Specific Heat @ 20°C	kJ/kg/°C	1.8	-
Molecular Weight	g/mol	122	Calculated

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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® A100 LC 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® A100 LC 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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