Shell Chemicals

Technical Datasheet

ShellSol A100 – Low Cumene

Product Code	Q7591
Region	Europe
Product Category	Aromatic Solvents
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 Benzene and Benzene homologous like Xylene and Cumene.

Typical Properties

Property	Unit	Method	Value
Density @15°C	kg/L	ASTM D4052	0.881
Coefficient of Cubic Expansion @20°C	10^{-4}/°C	Calculated	9
Refractive Index @20°C	-	ASTM D1218	1.5045
Colour	Saybolt	ASTM D156	+30
Copper Corrosion (1hr @100°C)	-	ASTM D130	1
Doctor Test	-	ASTM D4952	Negative
Non Volatile Matter	mg/100ml	ASTM D1353	1
Distillation, Initial Boiling Point	°C	ASTM D86	169
Distillation, Dry Point	°C	ASTM D86	179
Relative Evaporation Rate (nBuAc=1)	-	ASTM D3539	0.20
Relative Evaporation Rate (Ether=1)	-	DIN 53170	50
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
Vapor Pressure @ 0°C	kPa	Calculated	0.06
Vapor Pressure @ 20°C	kPa	Calculated	0.25

Saturated Vapor Concentration @ 20°C	g/m^3	Calculated	13
Aromatics	% m/m	GC	>99
Benzene	mg/kg	GC	< 3
Cumene	% m/m	GC	< 0.09
Xylene	% m/m	GC	< 0.09
Sulfur	mg/kg	ISO 20846	< 0.5
Flash Point	°C	IP 170	49
Lower Explosion Limit in Air	% v/v		0.6
Upper Explosion Limit in Air	% v/v		7.0
Auto Ignition Temperature	°C	ASTM E659	507
Electrical Conductivity @ 20°C	pS/m	ASTM D4308	< 10
Dielectric Constant @ 20°C	-	-	2.4
Aniline Point, Mixed	°C	ASTM D611	14
Kauri-Butanol Value	-	ASTM D1133	90
Pour Point	°C	ASTM D97	< -30
Viscosity @ 25°C	mm^2/s	ASTM D445	0.9
Surface Tension @ 20°C	mN/m	Du Nouy ring	29
Hildebrand Solubility Parameter	$(cal/cm^3)^{1/2}$	-	8.8
Hydrogen Bonding Index	-	-	5.0
Fractional 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	Calculated	122

(#) 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
International Organization for Standardization (ISO) : www.iso.org
Deutsches Institut für Normung (DIN) : www.din.de

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 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 on ww.shell.com/chemicals.

Storage Handling

Provided proper storage and handling precautions are taken we would expect ShellSol A100 to be technically stable for at least 12 months. For detailed advice on Storage and Handling please refer to the Safety Data Sheet on www.shell.com/chemicals.

Trademark

ShellSol is a Shell trademark.