**Shell Chemicals**

Technical Datasheet

**ShellSol A100**

**Product Code**  Q7391  
**Region**  Europe  
**Product Category**  Aromatic Solvents  
**CAS Registry Number**  64741-95-6  
**EINECS Number**  265-199-0  
**Description**  ShellSol A100 is a C9-C10 aromatic hydrocarbon solvent.

**Typical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit</th>
<th>Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density @15°C</td>
<td>kg/L</td>
<td>ASTM D4052</td>
<td>0.880</td>
</tr>
<tr>
<td>Coefficient of Cubic Expansion @20°C</td>
<td>10^-4/°C</td>
<td>Calculated</td>
<td>9</td>
</tr>
<tr>
<td>Refractive Index @20°C</td>
<td>-</td>
<td>ASTM D1218</td>
<td>1.504</td>
</tr>
<tr>
<td>Colour</td>
<td>-</td>
<td>ASTM D156</td>
<td>+30</td>
</tr>
<tr>
<td>Bromine Index</td>
<td>mg Br/100g</td>
<td>ASTM D1492</td>
<td>300</td>
</tr>
<tr>
<td>Copper Corrosion (1hr @100°C)</td>
<td>-</td>
<td>ASTM D130</td>
<td>1</td>
</tr>
<tr>
<td>Doctor Test</td>
<td>-</td>
<td>ASTM D4952</td>
<td>Negative</td>
</tr>
<tr>
<td>Non Volatile Matter</td>
<td>mg/100ml</td>
<td>ASTM D1353</td>
<td>1</td>
</tr>
<tr>
<td>Distillation, Initial Boiling Point</td>
<td>°C</td>
<td>ASTM D86</td>
<td>168</td>
</tr>
<tr>
<td>Distillation, Dry Point</td>
<td>°C</td>
<td>ASTM D86</td>
<td>181</td>
</tr>
<tr>
<td>Relative Evaporation Rate (nBuAc=1)</td>
<td>-</td>
<td>ASTM D3539</td>
<td>0.20</td>
</tr>
<tr>
<td>Relative Evaporation Rate (Ether=1)</td>
<td>-</td>
<td>DIN 53170</td>
<td>50</td>
</tr>
<tr>
<td>Antoine Constant A #</td>
<td>kPa, °C</td>
<td>-</td>
<td>6.74780</td>
</tr>
<tr>
<td>Antoine Constant B #</td>
<td>kPa, °C</td>
<td>-</td>
<td>1912.9</td>
</tr>
<tr>
<td>Antoine Constant C #</td>
<td>kPa, °C</td>
<td>-</td>
<td>240.330</td>
</tr>
<tr>
<td>Antoine Constants: Temperature range</td>
<td>°C</td>
<td>-</td>
<td>+20 to +160</td>
</tr>
<tr>
<td>Vapor Pressure @ 0°C</td>
<td>kPa</td>
<td>Calculated</td>
<td>0.06</td>
</tr>
</tbody>
</table>
Vapor Pressure @ 20°C  kPa  Calculated  0.25
Saturated Vapor Concentration @ 20°C  g/m³  Calculated  13
Aromatics  % m/m  GC  >99
Benzene  mg/kg  GC  < 3
Sulfur  mg/kg  ISO 20846  < 0.5
Flash Point  °C  IP 170  48
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  mm²/s  ASTM D445  0.89
Surface Tension @ 20°C  mN/m  Du Nouy ring  29
Hildebrand Solubility Parameter  (cal/cm³)⁰.⁵  -  8.8
Hydrogen Bonding Index  -  -  5.0
Fractional Polarity  -  -  0.001
Heat of Vaporization at T_boil  kJ/kg  -  325
Heat of Combustion (Net) @ 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: \[ \log P = A - \frac{B}{T+C} \]

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)
International Organization for Standardization (ISO)  :  [www.iso.org](http://www.iso.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 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 www.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.

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