Shell Chemicals

Technical Datasheet

ShellSol TD

Product Code	Q7411
Region	Americas
Product Category	Isoparaffins
CAS Registry Number	64741-65-7
EINECS Number	265-067-2
Description	ShellSol TD is a synthetical isoparaffinic hydrocarbon solvent, characterised by a low odour.

Typical Properties

Property	Unit	Method	Value
Water	mg/kg	ASTM E1064	< 50
Density @15°C	kg/L	ASTM D4052	0.751
Coefficient of Cubic Expansion @20°C	10^{-4}/°C	Calculated	10
Refractive Index @20°C	-	ASTM D1218	1.420
Colour	Saybolt	ASTM D156	+30
Bromine Index	mg Br/100g	ASTM D1492	300
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	174
Distillation, Dry Point	°C	ASTM D86	187
Relative Evaporation Rate (nBuAc=1)	-	ASTM D3539	0.16
Relative Evaporation Rate (Ether=1)	-	DIN 53170	70
Antoine Constant A #	kPa, °C	-	6.41880
Antoine Constant B #	kPa, °C	-	1745.6
Antoine Constant C #	kPa, °C	-	222.160
Antoine Constants: Temperature range	°C	-	+ 40 to +140

Vapor Pressure @ 0°C	kPa	Calculated	0.04
Vapor Pressure @ 20°C	kPa	Calculated	0.16
Saturated Vapor Concentration @ 20°C	g/m^3	Calculated	11
Paraffins	% m/m	GC	>98
Naphthenes	% m/m	GC	< 2
Aromatics	mg/kg	SMS 2728	50
Benzene	mg/kg	GC	< 3
Sulfur	mg/kg	ISO 20846	< 0.5
Flash Point	°C	ASTM D93	46
Lower Explosion Limit in Air	% v/v		0.6
Upper Explosion Limit in Air	% v/v		6.0
Auto Ignition Temperature	°C	ASTM E659	450
Electrical Conductivity @ 20°C	pS/m	ASTM D4308	< 1
Dielectric Constant @ 20°C	-	-	2.0
Aniline Point	°C	ASTM D611	84
Kauri-Butanol Value	-	ASTM D1133	26
Pour Point	°C	ASTM D97	< -50
Viscosity @ 25°C	mm^2/s	ASTM D445	1.6
Surface Tension @ 20°C	mN/m	Du Nouy ring	23
Thermal Conductivity @ 20°C	W/m/°C		0.13
Hildebrand Solubility Parameter	$(cal/cm^3)^{1/2}$	-	7.3
Hydrogen Bonding Index	-	-	0
Fractional Polarity	-	-	0
Heat of Vaporization at T_{boil}	kJ/kg	-	250
Heat of Combustion (Net) @t 25°C	kJ/kg	-	45500
Specific Heat @ 20°C	kJ/kg/°C	-	2.1
Molecular Weight	g/mol	Calculated	161

(#) 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 TD 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 TD 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.