Shell Chemicals

Data Sheet

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Product Name **Toluene S**

Product Code **T1402** **Africa**

Product Category **Aromatics**

CAS Registry Number 108-88-3

EINECS Number 203-625-9

Typical Properties

Property	Unit	Method	Value
Density @15°C	kg/l	ASTM D4052	0.871
Density @20°C	kg/l	ASTM D4052	0.867
Cubic Expansion Coefficient @20°C	(10^-4)/°C	-	11
Refractive Index @20°C	-	ASTM D1218	1.497
Color	Saybolt	ASTM D156	+30
Acid Wash Color	-	ASTM D848	1
Distillation, IBP	°C	ASTM D86	110
Distillation, DP	°C	ASTM D86	111
Relative Evaporation Rate (nBuAc=1)	-	ASTM D3539	1.9
Antoine Constant A #	kPa, °C	-	6.07577
Antoine Constant B #	kPa, °C	-	1342.31
Antoine Constant C #	kPa, °C	-	219.187
Antoine Constants: Temperature range	°C	-	+40 to 100
Vapor Pressure @0°C	kPa	Calculated	0.89
Vapor Pressure @20°C	kPa	Calculated	2.9
Saturated Vapor Concentration @20°C	g/m³	Calculated	110
Aromatics	%v/v	GC	> 99
Benzene	%v/v	GC	< 0.04
Non-Aromatic Hydrocarbons	%v/v	GC	< 1
Flash Point	°C	IP 170	4
Auto Ignition Temperature	°C	ASTM E659	535
Explosion Limit: Lower	%v/v	-	1.2
Explosion Limit: Upper	%v/v	-	7.1
Electrical Conductivity @20°C	pS/m	-	< 10
Aniline Point, Mixed	°C	ASTM D611	9
Kauri-Butanol Value	-	ASTM D1133	105

Pour Point	°C	ASTM D97	< -50
Surface Tension @20°C	mN/m	Du Nouy ring	29
Viscosity @25°C	mm^2/s	ASTM D445	0.64
Hildebrand Solubility Parameter	$(cal/cm^3)^{\wedge}½$	-	8.9
Hydrogen Bonding Index	-	-	4.2
Fractional Polarity	-	-	0.001
Molecular Weight	g/mol	Calculated	92

(#) 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
Energy Institute (IP) : www.energyinst.org.uk

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

Toluene S does not contain detectable quantities of polycyclic aromatics, heavy metals or chlorinated compounds.

Storage and Handling

Provided proper storage and handling precautions are taken we would expect Toluene S 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.

Hazard Information

For detailed Hazard Information please refer to the Material Safety Data Sheet on www.shell.com/chemicals.

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