Shell Chemicals

Data Sheet

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Product Name

Hexane Extraction Grade

Product Code **Q1252** **Africa**

Product Category **Special Boiling Point Solvents**

CAS Registry Number 64742-49-0

EINECS Number 265-151-9

Description

In the range of SBPs, Hexane is a fast evaporating hydrocarbon solvent that consists essentially of hexane isomers. A concentration of approximately 50% makes n-hexane the major component in this mixture. As a member of the SBP range it has undergone a high degree of general refining that results in a low level of impurities such as sulphur, olefins, benzene and total aromatics.

Typical Properties

Property	Unit	Method	Value
Density @15°C	kg/l	ASTM D4052	0.677
Density @20°C	kg/l	ASTM D4052	0.673
Cubic Expansion Coefficient @20°C	(10^-4)/°C	-	13
Refractive Index @20°C	-	ASTM D1218	1.380
Color	-	ASTM D156	+30
Bromine Index	mg Br/100g	IP 299	50
Distillation, IBP	°C	ASTM D1078	65
Distillation, DP	°C	ASTM D1078	69
Relative Evaporation Rate (nBuAc=1)	-	ASTM D3539	7.2
Antoine Constant A #	kPa, °C	-	7.38070
Antoine Constant B #	kPa, °C	-	2110.27
Antoine Constant C #	kPa, °C	-	326.200
Antoine Constants: Temperature range	°C	-	+20 to +70
Vapor Pressure @0°C	kPa	Calculated	8.2
Vapor Pressure @20°C	kPa	Calculated	19
Saturated Vapor Concentration @20°C	g/m³	Calculated	681
Paraffins	% m/m	GC	85
Naphthenes	% m/m	GC	15
Aromatics	mg/kg	SMS 2728	< 100
Benzene	mg/kg	GC	< 10
Sulfur	mg/kg	ASTM D5453	< 5
Flash Point	°C	IP 170	-30

	Auto Ignition Temperature	°C	ASTM E659	375
	Explosion Limit: Lower	%v/v	-	1.1
	Explosion Limit: Upper	%v/v	-	7.4
	Electrical Conductivity @20°C	pS/m	-	< 1
	Aniline Point	°C	ASTM D611	65
	Kauri-Butanol Value	-	ASTM D1133	31
	Pour Point	°C	ASTM D97	< -50
	Surface Tension @20°C	mN/m	Du Nouy ring	19
	Viscosity @25°C	mm^2/s	ASTM D445	0.47
	Hildebrand Solubility Parameter	$(cal/cm^3)^{\wedge}½$	-	7.3
	Hydrogen Bonding Index	-	-	0
	Fractional Polarity	-	-	0
	Molecular Weight	g/mol	Calculated	86

(#) 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

Shell Method Series (SMS) methods are issued by Shell Golabl Solutions International B.V., Shell Research and Technology Centre, Amsterdam, The Netherlands. Copies of SMS can be obtained through your local Shell Chemicals company.

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

Hexane Extraction Grade 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 Hexane 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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