Shell Chemicals

Technical Datasheet

Pentane Blend 80/20

Product Code	Q1117
Region	Europe
Product Category	Pentanes
CAS Registry Number	Mixture
EINECS Number	Mixture
Description	Pentane blend 80/20 is a very volatile hydrocarbon solvent, low in odour and impurities.

Typical Properties

Property	Unit	Method	Value
Water	% m/m	ASTM D1364	< 0.005
Density @15°C	kg/L	ASTM D4052	0.631
Coefficient of Cubic Expansion @20°C	10^{-4}/°C	Calculated	16
Refractive Index @20°C	-	ASTM D1218	1.357
Colour	Saybolt	ASTM D156	+30
Bromine Index	mg Br/100g	ASTM D1492	50
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 D1078	34
Distillation, Dry Point	°C	ASTM D1078	36
Relative Evaporation Rate (nBuAc=1)	-	ASTM D3539	12
Relative Evaporation Rate (Ether=1)	-	DIN 53170	< 1.0
Vapor Pressure @ 0°C	kPa	Calculated	28
Vapor Pressure @ 20°C	kPa	Calculated	62
Saturated Vapor Concentration @ 20°C	g/m^3	Calculated	1837
Paraffins	% m/m	GC	>99

Naphthenes	% m/m	GC	< 1
Aromatics	mg/kg	SMS 2728	< 5
Benzene	mg/kg	GC	< 3
Toluene	mg/kg	GC	< 3
n-Hexane	%m/m	GC	< 0.1
Sulfur	mg/kg	ISO 20846	< 0.5
Flash Point, (Abel)	°C	IP170	< -50
Lower Explosion Limit in Air	% v/v		1.7
Upper Explosion Limit in Air	% v/v		7.8
Auto Ignition Temperature	°C	ASTM E659	410
Electrical Conductivity @ 20°C	pS/m	ASTM D4308	< 1
Dielectric Constant @ 20°C	-	-	1.8
Aniline Point	°C	ASTM D611	72
Kauri-Butanol Value	-	ASTM D1133	29
Pour Point	°C	ASTM D97	< -50
Viscosity @ 25°C	mm^2/s	ASTM D445	0.35
Surface Tension @20°C	mN/m	Du Nouy ring	16
Thermal Conductivity @ 20°C	W/m/°C		0.12
Hildebrand Solubility Parameter	$(cal/cm^3)^{1/2}$	-	7.0
Hydrogen Bonding Index	-	-	0
Fractional Polarity	-	-	0
Heat of Vaporization at T_{boil}	kJ/kg	-	354
Heat of Combustion (Net) @t 25°C	kJ/kg	-	46000
Specific Heat @ 20°C	kJ/kg/°C	-	2.4
Molecular Weight	g/mol	Calculated	72

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

Pentane blend 80/20 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 Pentane blend 80/20 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.