Shell Chemicals

Technical Datasheet

Shell GTL Solvent GS270

Product Code	Q6543
Region	Global
Product Category	Synthetic Paraffins
CAS Registry Number	1437281-01-0
EINECS Number	940-730-5
Description	Shell GTL Solvent GS270 is a member of the product range that is derived from Gas-To-Liquid (GTL) technology . This technology delivers highly paraffinic products of constant composition. GTL products are typically very low in odour to even odourless . In addition sulphur, olefins, and aromatics levels are very low and even undetectable.

Typical Properties

Property	Unit	Method	Value
API Gravity	-	ASTM D4052	48.9
Specific Gravity @15.6°C/15.6°C [60°F/60°F]	-	ASTM D4052	0.784
Density @15.6°C [60°F]	kg/L	ASTM D4052	0.784
Density @15.6°C [60°F]	lb/gal	ASTM D4052	6.54
Density @15°C	kg/m^3	ASTM D4052	784
Coefficient of Cubic Expansion @20°C	10^{-4}/°C	Calculated	9
Refractive Index @20°C	-	ASTM D1218	1.439
Color	Saybolt	ASTM D156	+30
Copper Corrosion (1hr @100°C)	-	ASTM D130	1a
Distillation, Initial Boiling Point	°C	ASTM D86	274
Distillation, Final Boiling Point	°C	ASTM D86	305
Relative Evaporation Rate (nBuAc=1)	-	ASTM D3539	< 0.01
Relative Evaporation Rate (Ether=1)	-	DIN 53170	> 3900
Antoine Constant A #	kPa, °C	-	6.10654
Antoine Constant B #	kPa, °C	-	1810.9
Antoine Constant C #	kPa, °C	-	152.481

Antoine Constants: Temperature range	°C	-	+120 to +290
Vapor Pressure @20°C	kPa	Calculated	< 0.01
Vapor Pressure @50°C	kPa	Calculated	< 0.01
Saturated Vapor Concentration @20°C	g/m^3	Calculated	1.0
Volatile Organic Compound (VOC)	g/L	EU / EPA	784
Paraffins	% m/m	GC	98
Naphthenes	% m/m	GC	2
Aromatics	mg/kg	SMS2728	< 100
Benzene	mg/kg	GC	< 1
Sulfur	mg/kg	ISO 20846	< 0.5
Flash Point	°C	ASTM D93	130
Lower Explosion Limit in Air	% v/v		0.5
Upper Explosion Limit in Air	% v/v		7.0
Auto Ignition Temperature	°C	ASTM E659	> 200
Electrical Conductivity @25°C	pS/m	IEC 60247	< 0.1
Electrical Constant @25°C	-	IEC 60247	2.06
Aniline Point	°C	ASTM D611	97
Kauri-Butanol Value	-	ASTM D1133	17
Pour Point	°C	ASTM D97	-18
Hildebrand Solubility Parameter	$(cal/cm^3)^{1/2}$	-	7.5
Hydrogen Bonding Index	-	-	0
Fractional Polarity	-	-	0
Surface Tension @20°C	mN/m	-	29
Viscosity @25°C	mm^2/s	ASTM D445	4.7
Viscosity @40°C	mm^2/s	ASTM D445	3.3
Molecular Weight	g/mol	Calculated	239

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 Electrotechnical Commission (IEC) : www.iec.ch
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

Shell GTL Solvent GS270 does not contain detectable quantities of heavy metals and 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 Shell GTL Solvent GS270 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.