Shell
GTL
Performance Fluids

Technical Datasheet

Shell GTL Fluid G80

Product Code	002D7015
Product Category	Synthetic Paraffins
CAS Registry Number	1437281-03-2

Description

Shell Gas to Liquid (GTL) Fluid G80 is a high-performance fluid derived from natural gas feedstock converted into synthetic paraffins with state-of-the-art catalyst technology. Because of this combination of gaseous feedstock and intensive process control, concentrations of undesirable impurities (ie aromatics, olefins, sulfur, etc.) are virtually non-detectable.

- clean burning characteristics
- low cloud/ freeze/ pour point
- low odor
- low toxicity
- low vapor pressure
- low viscosity at high flash point
- ready biodegradability

Shell GTL Fluid G80 is part of the Shell GTL Performance Fluids range of products which can be provided in varying flash points and viscosities.

Typical Properties

Property	Unit	Method	Value
Appearance	-	ASTM 4176	Clear, free from suspended matter
Refractive index	-	ASTM D1218	1.4285
API Gravity	-	ASTM D4052	52.9
Specific Gravity @15.6°C/15.6°C [60°F/60°F]	-	ASTM D4052	0.767
Density @15°C	kg/m^3	ASTM D4052	767
Coefficient of Cubic Expansion @20°C	$10^{-4}/°C$	Calculated	10
Colour	Saybolt	ASTM D156	30
Distillation, Initial Boiling Point	°C	ASTM D86	200

Distillation, Final Boiling Point	°C	ASTM D86	260
Vapor Pressure @20°C	kPa	Calculated	<0.01
Antoine Constant A	kPa, °C	-	6.97927
Antoine Constant B	kPa, °C	-	1722.48
Antoine Constant C	kPa, °C	-	188.451
Relative evaporation rate (nBuAc = 1)	-	ASTM D3539	<0.01
Relative evaporation rate (Ether = 1)	-	DIN53170	>3900
Volatile Organic Compound (VOC), CARB LVP VOC Exemption	% exempted	-	100
VOC content, EPA method 24	%	EPA24	81
Volatile Organic Compound (VOC)	g/L	EU / EPA	767
Paraffins	% m/m	GC	>99
Naphthenes	% m/m	GC	0.5
Aromatics	% m/m	ASTM D6591	<0.03
Benzene	mg/kg	GC	<0.01
BTEX	mg/kg	GC	<0.1
Sulfur	mg/kg	ASTM D5453	< 3
Bromine index	Mg Br/100g	ASTM D2710	<0.5
Flash Point	°C	ASTM D93	83
Electrical Conductivity @20°C	pS/m	ASTM D2624	<1
Thermal conductivity @ 20°C	W/m/°C	-	0.13
Pour Point	°C	ASTM D97	-40
Aniline point	°C	ASTM D611	87
Kauri Butanol value	-	ASTM D1133	22
Copper Corrosion (1 hour @ 100°C)	-	ASTM D130	1a
Surface Tension @20°C	mN/m	-	28
Viscosity @25°C	mm^2/s	ASTM D445	2.4
Viscosity @40°C	mm^2/s	ASTM D445	1.8
Molecular Weight	g/mol	Calculated	192

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

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 Fluid G80 does not contain detectable quantities of heavy metals and chlorinated compounds.

Hazard Information

For detailed Hazard Information please refer to the products Safety Data Sheet.

Storage Handling

Provided proper storage and handling precautions are taken we would expect Shell GTL Fluid G80 to be technically stable for at least 12 months. For detailed advice on Storage and Handling please refer to the Safety Data Sheet.

Disclaimer

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