

Data Sheet

Product Name

VM&P Naphtha HT

This product is manufactured at more than one production site. The sales specifications of these products are the same, some typical data however may differ. Click on the production site below to obtain the right datasheet:

<u>Lemont, IL</u> <u>Cotton Valley, LA</u> Canada



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Data	Sheet	

Issued:

07-Apr-2005

Product Name

VM&P Naphtha HT

Product Code

Q6002

North America

Lemont, IL

Product Category

Special Boiling Point Solvents

CAS Registry Number Description 64742-89-8

VM&P Naphtha HT is a medium evaporating hydrocarbon solvent. It has an increased cycloparaffin content and hence solvency. The high degree of general refining gives this solvent its low level of impurities such as sulphur, olefins, benzene and total aromatics and low odor.

Sales Specification

Property	Unit	Min	Max	Method
Color	Saybolt	28		ASTM D156
API Gravity @15.6°C	API	52.2	63.1	ASTM D4052
Copper Corrosion (3hr @100°C)	-		1	ASTM D130
Distillation, IBP	°C	118.3		ASTM D86
Distillation, DP	°C		148.9	ASTM D86
Aromatics	% v/v		1.0	ASTM D3257
Flash Point, TCC	°C	10		ASTM D56
Aniline Point	°C		71.1	ASTM D611

Typical Properties	Property	Unit	Method	Value	
	Color	Saybolt	ASTM D156	+30	
	API Gravity	-	ASTM D4052	54.4	
	Density @15.6°C	lb/gal	ASTM D4052	6.34	
	Specific Gravity @15.6/15.6°C	-	ASTM D4052	0.761	
	Refractive Index @20°C	-	ASTM D1218	1.420	
	Acidity as Acetic Acid	% m/m	ASTM D1613	< 0.001	
	Acidity Distillation Residue	-	ASTM D1093	Neutral	
	Copper Corrosion (3hr @100°C)	-	ASTM D130	1	
	Doctor Test	-	ASTM D235	Negative	
	Non Volatile Matter	g/100mL	ASTM D1353	< 0.001	
	Distillation, IBP	°C	ASTM D86	131	
	Distillation, DP	°C	ASTM D86	144	
	Relative Evaporation Rate (nBuAc=1)	-	ASTM D3539	1.0	
	Vapor Pressure @20°C	kPa	-	1.5	
	Paraffins	%v/v	GC	33	
	Naphthenes	%v/v	GC	67	
	Aromatics	%v/v	ASTM D3257	0.2	
	Benzene	%v/v	GC	< 0.002	
	Sulfur	mg/kg	ASTM D4045	< 1	
	Flash Point	°C	ASTM D56	20	
	Explosion Limit: Lower	%v/v	-	0.9	
	Explosion Limit: Upper	%v/v	-	7.0	
	Aniline Point (M=Mixed)	°C	ASTM D611	60	
	Kauri-Butanol Value	-	ASTM D1133	36	
	Hildebrand Solubility Parameter	$(cal/cm^3)^{1/2}$	-	7.7	
	Viscosity @20°C	cSt	ASTM D445	0.79	
Test Methods	Copies of copyrighted test methorganisations:	nods can be obt	ained from the iss	suing	
	American Society for Testing and Materials (ASTM) : www.astm.org Energy Institute (IP) : www.energyinst.org.uk Deutsches Institut für Normung (DIN) : www.din.de				
	Shell Method Series (SMS) methods are issued by Shell International Chemicals 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 anal different from those mentioned validated and can be obtained	in this datashee	et. Such methods h	ave been	

Quality

VM&P Naphtha HT 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 VM&P Naphtha HT 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.
Contact	For further information, please visit our website at www.shell.com/chemicals, contact your local Shell representative, or call the 'Shell Chemicals' order center at 1 866 89 SHELL (1 866 897 4355).
Warranty	All products purchased or supplied by Shell are subject to terms and conditions set out in the contract, order acknowledgment and/or bill of lading. Shell warrants that its product will meet those specifications designated as such herein or in other publications. All other information including that herein, supplied by Shell is considered accurate but is furnished upon the express condition that the customer shall make its own assessment to determine the products suitability for a particular purpose. Shell makes no other warranty either expressed or implied, regarding such other information, the data upon which the same is based, or the results to be obtained from use thereof; that any products shall be merchantable or fit for any purpose; or that the use of such other information or product will not infringe any patent. The expression 'Shell Chemicals' refers to the companies of the Royal Dutch/Shell Group which are engaged in chemical businesses. Each of the companies which make up the Royal Dutch/Shell Group of companies is an independent entity and has its own separate identity.



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Data Sheet	07-Apr-2005				
Product Name	VM&P Naphtha HT				
Product Code	Q6002 N	orth Americ	ca	Cotton Vall	ey, LA
Product Category	Special Boiling Poir	nt Solvents			
CAS Registry Number	64742-89-8				
Description	VM&P Naphtha HT is an increased cyclopo general refining give olefins, benzene and	ıraffin content s this solvent i	and hence ts low level	solvency. The of impurities	e high degree of
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Spotimedia	Color	Saybolt	28		ASTM D156
	API Gravity @15.6°C	API	52.2	63.1	ASTM D4052
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	Distillation, IBP	°C	118.3		ASTM D86
	Distillation, DP	°C		148.9	ASTM D86

% v/v

 $^{\circ}\text{C}$

 $^{\circ}\text{C}$

10

Aromatics

Aniline Point

Flash Point, TCC

1.0

71.1

ASTM D3257

ASTM D56

ASTM D611

Typical Properties	Property	Unit	Method	Value
	Color	Saybolt	ASTM D156	+30
	API Gravity	-	ASTM D4052	59.2
	Density @15.6°C	lb/gal	ASTM D4052	6.19
	Specific Gravity @15.6/15.6°C	-	ASTM D1250	0.742
	Refractive Index @25°C	-	ASTM D1747	1.408
	Copper Corrosion (3hr @100°C)	-	ASTM D130	1
	Distillation, IBP	°C	ASTM D86	124
	Distillation, DP	°C	ASTM D86	146
	Aromatics	%v/v	ASTM D3257	1
	Flash Point	°C	ASTM D56	13
	Explosion Limit: Lower	%v/v	-	0.9
	Explosion Limit: Upper	%v/v	-	7.0
	Aniline Point (M=Mixed)	°C	ASTM D611	67
	Kauri-Butanol Value	-	ASTM D1133	32
	American Society for Testing ar Energy Institute (IP) Deutsches Institut für Normung			rgyinst.org.uk
	Energy Institute (IP)	(DIN) nods are issue ology Centre, I through you vses, local tes in this datash	: www.ener : www.din. ed by Shell Internation Amsterdam, The No or local Shell Chemic that methods may be a eet. Such methods h	rgyinst.org.uk de onal Chemical etherlands. als company. pplied that ar ave been
Quality	Energy Institute (IP) Deutsches Institut für Normung Shell Method Series (SMS) meth B.V., Shell Research and Technol Copies of SMS can be obtained For routine quality control analy different from those mentioned	(DIN) nods are issue ology Centre, I through you vses, local testin this datash through your in detectable	: www.ener : www.din.ed by Shell Internation Amsterdam, The New or local Shell Chemical threatheds may be appeted. Such methods he local Shell Chemical	rgyinst.org.uk de onal Chemica etherlands. als company. pplied that ar ave been als company.
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Warranty

All products purchased or supplied by Shell are subject to terms and conditions set out in the contract, order acknowledgment and/or bill of lading. Shell warrants that its product will meet those specifications designated as such herein or in other publications. All other information including that herein, supplied by Shell is considered accurate but is furnished upon the express condition that the customer shall make its own assessment to determine the products suitability for a particular purpose. Shell makes no other warranty either expressed or implied, regarding such other information, the data upon which the same is based, or the results to be obtained from use thereof; that any products shall be merchantable or fit for any purpose; or that the use of such other information or product will not infringe any patent.

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Product Code

Q6002 North America

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Sales
Specification

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Distillation, IBP	°C	118.3		ASTM D86
Distillation, DP	°C		148.9	ASTM D86
Aromatics	% v/v		1.0	ASTM D3257
Flash Point, TCC	°C	10		ASTM D56
Aniline Point	°C		71.1	ASTM D611

Typical Properties	Property	Unit	Method	Value
	Color	Saybolt	ASTM D156	+30
	API Gravity	-	ASTM D4052	56.2
	Density @15°C	kg/L	ASTM D4052	0.754
	Density @15.6°C	lb/gal	ASTM D4052	6.29
	Specific Gravity @15.6/15.6°C	-	ASTM D4052	0.754
	Copper Corrosion (3hr @100°C)	-	ASTM D130	1
	Distillation, IBP	°C	ASTM D86	122
	Distillation, 50%v	°C	ASTM D86	126
	Distillation, DP	°C	ASTM D86	140
	Evaporation Time (nBuAc=470sec)	seconds	ASTM D3539	336
	Relative Evaporation Rate (nBuAc=1)	-	ASTM D3539	1.4
	Vapor Pressure @20°C	kPa	Calculated	1.3
	Paraffins	% m/m	GC	48
	Naphthenes	% m/m	GC	52
	Aromatics	%v/v	ASTM D3257	< 0.1
	Benzene	%v/v	GC	< 0.01
	Flash Point	°C	ASTM D56	16
	Auto Ignition Temperature	°C	ASTM E659	260
	Explosion Limit: Lower	%v/v	-	0.9
	Explosion Limit: Upper	%v/v	-	7.0
	VOC Content	g/L	ASTM D4052	754
	Aniline Point (M=Mixed)	°C	ASTM D611	61
	Kauri-Butanol Value	-	ASTM D1133	36
	Hildebrand Solubility Parameter	$(cal/cm^3)^{1/2}$	-	7.6
	Hydrogen Bonding Index	-	-	0.0
	Fractional Polarity	-	-	0.0
	Viscosity @25°C	cSt	ASTM D445	0.83
	Molecular Weight	g/mol	-	120

Test Methods

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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.

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