

Shell Chemicals

C	Data Sheet	IS 3.2.13A				
		Issued July 2001, 6 th Edition				
_	Product name	HEXYLENE GLYCOL				
	Description	Hexylene glycol is a water-white, moderately hygroscopic glycol. It has exceptional solvency for a variety of materials and is miscible with aliphatic and aromatic hydrocarbons as well as with polar substances such as water, fatty acids, and alcohols.				
		2-methyl-2.4-pentanediol HG		G		
		CAS Registry Number	107-41-5			
_	Typical physical	Property	Unit	Test method	Value	
	properties	Flash point (PMCC)	°C	ASTM D93	93	
		Refractive index		ASTM D1218	1.428	
		Vapour pressure at 20 °C Antoine constant A ⁽¹⁾	kPa		0.003 6.55177	
		Antoine constant B			1606.29	
		Antoine constant C			156.045	
		Temperature limits for the	°C		+70 to +200	
		Antoine equation				
		Pour point	°C	ASTM D97	-50	
		Coefficient of cubic expansion	10 ⁻⁴ /°C		7.0	
		Specific heat	kJ/kg/°C		2.20	
		Latent heat of evaporation	kJ/kg		435	
		Heat of combustion	kJ/kg		29875	
		Electrical conductivity	pS/m	ASTM D4308	3x10 ⁶	
		Dielectric constant	•		~7.7	
		Surface tension	mN/m		33.1	
		Dynamic viscosity	mPa.s	ASTM D445	38.9	
		Molecular weight			118	
		Hexylene glycol is completely n	niscible with	water at 20 °C.		
		Hexylene glycol does not form an azeotrope with water.				
		All properties at 20°C unless otherwise stated.				
		¹⁾ The vapour pressure, betwee using the Antoine equation:	en the specific temperature limits, can be calculated bour pressure in kPa and T is the temperature in ºC.			
_		log ₁₀ P+A - <u>B</u> where P is the vap T+C				
	Solvent	Property		Test method	Value	
	properties	Hildebrand solubility parameter		(cal/cm ³) ^{1/2}	11.3	
		Hydrogen bonding index			-20.0	
		Fractional polarity			0.737	
		Relative evaporation rate (nBu	Ac=1)	ASTM D3539	0.007	
		Relative evaporation rate (ethe	r=1)	DIN 53170	1680	

Safety data	Property	Unit	Test method	Value		
-	Flash point (PMCC)	°C	ASTM D93	93		
	Lower explosive limit in air	% v/v		1.0		
	Upper explosive limit in air	% v/v		9.9		
	Autoignition temperature	°C	ASTM E659	425		
	Transport: ADR/RID class/item	n/label		-		
	IMO UN number/lat	bel		-		
	class/packing	group		-		
	EC user label: Symbol			Xi		
	Risk phrases			36/38		
	Safety phrases	3		-		
Test methods	ASTM methods are published by the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103, USA, and are available in Europe from ASTM European Office, 27/29 Knowl Piece, Wilbury Way, Hitchin, Herts, SG4 OSX, UK. DIN methods are published by Beuth Verlag GmbH., Burggrafenstrasse 4-7, D1000, Berlin, Germany.					
Specifications	Hexylene glycol can be supplie Please contact your local Shel	ed to meet the	e requirements of A company if you nee	ASTM D2636. d more details.		
Applications	Hexylene glycol is used as a coupling agent in the manufacture of hydraulic fluids, industrial cleaning compounds, soluble oils and dry cleaning soaps. In latex paints, hexylene glycol is a valuable and versatile additive; it aids coalescence, promotes levelling and smoothness of films, enhances film integrity and preserves freeze-thaw resistance. Solvent uses for hexylene glycol include the preparation of dyes, and synthetic resin-base- flash-dry and steamset inks. It also functions as a moistening and softening agent for composition cork, casein, leather, paper and textile fibres, and as a wetting or dispersing agent in polishes and cleaners. Other applications for hexylene glycol include its use as an ingredient in grinding and extrusion aids and as a solvent palsticiser in surface coatings.					
Storage and handling	Provided proper storage and h hexylene glycol to be stable fo Advice on storage and handlin Chemicals company. Hexylen drums; details available on rec	andling preca r at least 12 r g may be obt e glycol is av quest.	autions are taken w nonths. ained from your loo vailable from Shell	ve would expect cal Shell in bulk and		
Hazard	Hexylene glycol is irritating to t	he eyes and	skin.			
Information	For further advice please refer to Material Safety Data Sheet reference IS 3.2.13.					
Warranty	Shell companies have their ow collective expressions "Shell" a in contexts where the referenc in general or where no useful p Shell company or companies.	n separate id and "Group" a e is to compa purpose is se	lentities, but in this are sometimes use nies of the Royal I rved by identifying	publication the d for convenience Dutch/Shell Group the particular		
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Product code	S1218
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