



Safety Data Sheet

1. PRODUCT IDENTIFICATION

Name	Hexylene Glycol
Synonyms	2-methyl-2,4-pentanediol; 2,4-pentanediol, 2-methyl-
CAS#	107-41-5
Europe EC#	203-489-0
Product Uses	hydraulic fluid, printing ink solvent, fuel & lubricant additive; defoamer, etc

EMERGENCY INFORMATION

Canada Call CANUTEC (collect) (613) 996-6666
 U.S.A. Call CHEMTREC (800) 424-9300

2. HAZARDS

GHS Class (Category)	skin irritation (2)	eye irritation (2)
Signal Words	WARNING	WARNING
Hazard Statements	irritating to skin (H315)	causes serious eye irritation (H319)



Canada – WHMIS
 Key:

D 2B
B 2 – Flash Point <38°C, **B 3** – Flash Point >38°C & <93°C
D 1 – Immediately Toxic, **D 2** – Chronic Toxicity
C – Oxidising Substance, **E** – Corrosive, **F** – Reactive Substance



3. COMPOSITION

	%	TWAEV / TLV ppm / mg/m ³	LD ₅₀ (mg/kg) ORAL	LD ₅₀ (mg/kg) SKIN	LC ₅₀ ppm INHALATION
2-methyl-2,4-pentanediol	100%	25 / 120	2580	7900	not known

4. FIRST AID

SKIN:	Wash with plenty of water. Remove contaminated clothing and do not reuse until thoroughly laundered.
EYES:	Wash eyes with plenty of water, holding eyelids open. Seek medical assistance promptly if there is irritation.
INHALATION:	Remove from contaminated area promptly. CAUTION: Rescuer must not endanger himself! If breathing stops, administer artificial respiration and seek medical aid promptly.
INGESTION:	Give plenty of water to dilute product. Do not induce vomiting (NOTE below). Keep victim quiet. If vomiting occurs, lower victim's head below hips to prevent inhalation of vomited material. Seek medical help promptly.

Inadvertent inhalation of vomited material may seriously damage the lungs. The danger of this is greater than the risk of poisoning through absorption of this relatively low-toxicity substance. The stomach should only be emptied under medical supervision, and after the installation of an airway to protect the lungs.

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5. FIRE FIGHTING & FLAMMABILITY

Flash Point	above 94°C / above 201°F (closed cup)
Autoignition Temperature	306°C / 583°F
Flammable Limits	1.2% – 8.1%
Combustion Products	carbon monoxide, nitrogen oxides, smoke, part oxidised hydrocarbon fragments
Firefighting Precautions	foam, dry chemical, water fog or spray; firefighters must wear SCBA
Static Charge Accumulation	cannot accumulate a static charge on agitation or pumping

6. ACCIDENTAL RELEASE MEASURES

Leak Precaution	dyke to control spillage and prevent environmental contamination
Handling Spill	ventilate contaminated area; recover free liquid with suitable pumps; absorb residue on an inert sorbent, sweep, shovel, & store in closed containers for recycling or disposal

7. HANDLING & STORAGE

Store in a cool, dry environment, away from sources of ignition and oxidising agents. Always ensure that containers, whether empty or full, are tightly sealed unless in use. Product vapour or mist irritates the eyes. Avoid exposure to mist or vapour; ventilate workplace if product is handled hot or if mist is generated.

Never cut, drill, weld or grind on or near this container. Avoid prolonged contact with skin, which may irritate, and wash work clothes frequently. An eye bath and safety shower must be available near the workplace.

8. EXPOSURE CONTROL & PERSONAL PROTECTION

Ontario CEV	25ppm / 120mg/m ³	Ontario STEV	not listed
ACGIH TLV	25ppm / 120mg/m ³	ACGIH STEL	not listed
OSHA PEL	25ppm / 120mg/m ³	OSHA STEL	not listed
Ventilation	mechanical ventilation may be required to control airborne titre to regulated limits if product is strongly heated or misted during handling		
Hands	probably not required; nitrile gloves may be used – <i>other types may also protect; consult supplier</i>		
Eyes	safety glasses with side shields – <i>always protect the eyes</i>		
Clothing	no special protective clothing required		

9. PHYSICAL PROPERTIES

Odour & Appearance	clear, colourless, odourless, somewhat viscous, hygroscopic liquid
Odour Threshold	not known – <i>odourless</i>
Vapour Pressure	0.05mmHg / 0.0066kPa (20°C / 68°F)
Evaporation Rate (<i>Butyl Acetate = 1</i>)	0.003
Vapour Density (air = 1)	4.1
Boiling Range	198°C / 388°F
Freezing Point	-50°C / -58°F
Specific Gravity	0.922 (20/20°C)
Water Solubility	complete
Also soluble in	most organic solvents including aromatic hydrocarbons; soluble in fatty acids; somewhat soluble in aliphatic hydrocarbons
Log P _{O/W} (Octanol/H ₂ O partition)	0.58
Viscosity	34centipoise (25°C / 77°F)
pH	none – (<i>does not liberate hydrogen ions when dissolved</i>)
Conversion Factor	1ppm = 4.8mg/m ³
Molecular Weight	118grams per mole

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10. REACTIVITY

Dangerously Reactive With	strong oxidising agents; perchloric acid, strong acids
Also Reactive With	strong alkalis cause rapid evolution of (flammable) hydrogen gas
Stability	stable; will not polymerize
Decomposes in Presence of	strong, hot alkalis
Decomposition Products	flammable hydrogen gas
Sensitive to Mechanical Impact	no

11. TOXICITY

Effects, Acute Exposure

Skin Contact	little to no effect; may irritate on prolonged contact
Skin Absorption	slight; no toxic effects likely by this route
Eye Contact	liquid severely irritating; vapour irritating above 50ppm (<i>max. vapour conc. at 20°C</i>)
Inhalation	slightly irritating above 100ppm (<i>aerosol</i>), strongly irritating above 1000ppm
Ingestion	not known; low toxicity – not a route of industrial exposure

Effects, Chronic Exposure

General	prolonged exposure may cause dermatitis
Sensitising	not a sensitiser in humans or animals – <i>very few cases of human sensitization on record</i>
Carcinogen/Tumorigen	not considered a tumorigen or a carcinogen in humans or animals
Reproductive Effect	no known effect in humans or animals
Mutagen	no known effect on humans or animals
Synergistic With	not known
LD ₅₀ (oral)	3100mg/kg (mouse), 2950 & 3200mg/kg (rabbit), 3700 & 4700mg/kg (rat), 2580 & 2800mg/kg (guinea pig)
LD ₅₀ (skin)	7900 & 12,260mg/kg (rabbit)
LC ₅₀ (inhalation)	no data available

12. ECOLOGICAL INFORMATION

Bioaccumulation	readily eliminated and is not a bioaccumulator
Biodegradation	biodegrades readily & rapidly in the presence of oxygen; 56% to 95% in 5 days
Abiotic Degradation	reacts with atmospheric hydroxyl radicals; estimated ½-life in air is 1.6 days
Mobility in soil, water	water soluble; moves readily in soil and water
Aquatic Toxicity	
LC ₅₀ (Fish, 96hr)	12,000mg/litre (Carassius auratus), 9910mg/litre (Gambusia affinis), 12,350mg/litre (Ictalurus punctatus), 12,800mg/litre (Lepomis macrochirus), 8690mg/litre (Pimephelas promelas), 9450mg/litre (Salmo gairdneri), 8000mg/litre (Alburnus alburnus), & others
EC ₅₀ (Crustacea, 48hr)	3200, 5410 & 8700mg/litre (Daphnia magna), 7600mg/litre (Nitrocra spinipes), 3300mg/litre (Daphnia pulex), 16,500mg/litre (Orconnectes ilmmunis), & others
EC ₅₀ (Bacteria)	3070mg/litre (Photobacterium phosphoreum)

Hexylene Glycol's aquatic toxicity is very low.

13. DISPOSAL

Waste Disposal	do not flush to sewer , recycle solvent if possible, may be incinerated in approved facility
Containers	Drums should be reused. Recondition and pressure test by a licensed reconditioner prior to re-use. Pails must be vented and thoroughly dried prior to crushing and recycling. IBCs (intermediate bulk containers): polyethylene bottle must be pressure tested & recertified at 30 months. Replace at 60 months (5yrs). Steel containers must be inspected, pressure tested & recertified every 5 years. <i>Never cut, drill, weld or grind on or near this container, even if empty</i>

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14. TRANSPORT CLASSIFICATION

Canada TDG	PIN	UN - not regulated for transport
AND	Shipping Name	not regulated for transport
U.S.A. 49 CFR	Class & Packing Group	not regulated for transport
Marine Pollutant		not a marine pollutant
ERAP Required		NO

15. REGULATIONS

Canada DSL	on inventory
U.S.A. TSCA	on inventory
Europe EINECS	on inventory

16. OTHER INFORMATION

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Data from RTECS, HSDB (Haz. Substance Data Base), Cheminfo (CCOHS), IUCLID Datasheets (ESIS – European Chem. Substance Info. System), & others.

Preparation Date: **September 2004** Revision Date: **September 2007, September 2010, September 2013**

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