

Material Safety Data Sheet (MSDS)

Tempered Liquefied Petroleum Gas (TLP)

Issue 6 - May 2010



1. PRODUCT AND COMPANY DETAILS

Product Name	Tempered Liquefied Petroleum Gas (TLP)
Other Names	TLP
Use	As fuel in Domestic, Commercial and Industrial applications
Company	Origin Energy LPG Limited Australia Square 264 - 278 George Street Sydney NSW 2000
General Telephone Enquiries 13 24 62	Technical Information Telephone 07 3867 0362 Technical Information Fax 07 3867 0278

Emergency Telephone 1800 808 526 all hours

2. HAZARD IDENTIFICATION

Commercial Propane as supplied by Origin contains less than 0.1% of 1, 3 Butadiene and is not classified as hazardous according to criteria of Worksafe Australia. Commercial propane constitutes approximately 25% by volume of TLP.

Commercial Propane is classified as a Dangerous Good by the Australian Dangerous Goods Code.

UN Number 1954	Hazchem Code 2SE
Dangerous Goods Class 2.1	Emergency Guide EPG 2A2
Flammable (F)	R12 – Extremely flammable

Smell: People with poor or no sense of smell should be made aware of the risk in the event of a gas leak.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Entity	CAS Number	Proportion
Propane	[74-98-6]	7-26%
Propene	[115-07-1]	0-20%
Butane	[106-97-8]	0-0.1%
Butene	[106-98-9]	0-0.1%
Ethyl Mercaptan (Odorant)	[75-08-1]	1-2 ppm
Air		74%

NOTICE - Origin believes that information given herein is accurate and reliable at the date of compilation, and conforms to the guidelines of Safe Work Australia for the preparation of MSDS, but no warranty, express or implied, is made. While the MSDS provides adequate information for most users, an MSDS is not a substitute for expert advice on development of engineering and safe handling practices.

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4. FIRST AID	
Swallowed	This product is a gas so this is not likely to occur.
Eyes	Will cause irritation.
Skin	No effect.
Inhaled	<p>May cause light-headedness, dizziness and drowsiness. Excessive exposure may cause unconsciousness or even death, due to asphyxiation, particularly where the exposure occurs in an enclosed and/or poorly ventilated area.</p> <p>Remove patient to fresh air and allow to rest. If patient is unconscious and breathing, place them in the coma position, check airway and observe. If patient is not breathing, clear airway and apply mouth to mouth resuscitation. If patient is not breathing and does not have a pulse, commence cardio pulmonary resuscitation. Seek urgent medical attention.</p>
Advice to Doctor	Treat symptomatically.
5. FIRE FIGHTING MEASURES	
Fire/Explosion Hazard	<p>Evacuate area, remove ignition sources.</p> <p>Cut off gas supply if safe to do so - do not endanger life.</p> <p>DO NOT EXTINGUISH FIRE - allow gas to burn out.</p> <p>Use water to keep vessel(s) cool.</p> <p>NOTE: If ignition has occurred and water is not available, the tank metal may weaken from the heat and may result in an explosion.</p> <p>The area should be evacuated immediately.</p> <p>From a safe location, notify emergency services.</p> <p>Hazchem Code 2SE</p>
Combustion Products	<p>Carbon dioxide, water vapour, traces of carbon monoxide and nitrogen oxides.</p> <p>Fumes, smoke, carbon monoxide and aldehydes can be formed during incomplete combustion.</p> <p>Fire fighters may need self contained breathing apparatus.</p>

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6. ACCIDENTAL RELEASE MEASURES

Spills	TLP is supplied via a reticulation system to customer's premises. Move people away and upwind from a leak. Shut off supply of gas if it is safe to do so. Eliminate sources of ignition e.g. power supply, matches, non-intrinsically safe communication equipment. Ventilate area. Avoid breathing gas. Disperse with water spray. Note that vapour is heavier than air and will settle at the lowest point eg ditches, drains and water courses.
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7. HANDLING AND STORAGE

	TLP is supplied via a reticulation system to customer's premises.
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8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

	Propane is an asphyxiant – Safe Work Australia Exposure Standard Propylene is an asphyxiant – Safe Work Australia Exposure Standard
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Engineering Controls

Ignition Sources	Follow procedures to avoid static discharges. Use only intrinsically safe communication equipment (e.g. mobile phones and pagers). Use non-spark generating tools and flameproof (intrinsically safe) equipment.
Ventilation	Maintain adequate ventilation. TLP appliances can be hazardous when used in a poorly ventilated room.
Usage	Use only equipment approved for use with TLP installations and install in accordance with AS 5601.

Personal Protection:

	Not required in normal use. Breathing apparatus may be required in a gas atmosphere. If personnel are required to work in areas where the concentration of TLP may be above the exposure standard respiratory protection should be used. This should be a supplied air facemask or self contained breathing apparatus complying with AS1715 and AS1716.
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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Description/Properties	
Appearance	Colourless gas consisting of a mixture of propane with air supplied to the customer by means of a pipeline. A strong and distinctive odour is present to assist in the early detection of even minor leaks.
Boiling Point N/A	Flash Point N/A
Vapour Pressure (at 40°C) N/A	Flammability Limits 9-23% in air (v/v)
Solubility in Water (at 20°C)N/A	Auto ignition Temperature 494°C to 549°C
Specific Gravity Gas 1.15 (air=1)	

10. STABILITY AND REACTIVITY

	Stable under normal ambient conditions.
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11. TOXICOLOGICAL INFORMATION

Health Effects: Acute Exposure	
Swallowed	This product is a gas so this is not likely to occur.
Eyes	Will cause irritation.
Skin	No effect.
Inhaled	May cause light-headedness, dizziness and drowsiness. Excessive exposure may cause unconsciousness or even death, due to asphyxiation, particularly where the exposure occurs in an enclosed and/or poorly ventilated area.
Health Effects: Chronic Exposure	
	No chronic systemic effects reported from industrial exposures.
Carcinogenicity	No known effect
Mutagenicity	No known effect
Teratogenicity	No known effect

12. ECOLOGICAL INFORMATION

	TLP is supplied as a gas and will rapidly disperse into the atmosphere if released. It consists of air and hydrocarbons that photo chemically decompose under atmospheric conditions.
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13. DISPOSAL CONSIDERATIONS	
	Not applicable
14. TRANSPORT INFORMATION	
Transport Information	Not applicable – distributed by pipeline
15. REGULATORY INFORMATION	
	Poisons Schedule Number – Non allocated
	TLP is distributed by Origin only in Glen Innes NSW. The operation is required to comply with all relevant legislation and its Safety and Operating Plan. The installation of TLP Gas equipment must be performed only by appropriately licensed or authorised persons.
16. OTHER INFORMATION	
	Seek expert advice if repairs or modifications to installations are required.

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