PREMIER LPG

SUPPLYING LPG FOR LESS

Autogas Gas Safety Information

Autogas retailers should be especially aware of the Operating Instructions re Vehicle Filling (pages 5-8 below)

Hazards indentification:

Extremely flammable liquefied gas that readily forms explosive air vapour mixtures.

Potential health effects:

- Eye contact with product or gas under pressure can cause cold burns
- Inhalation may cause irritation to nose and/or throat, headache, nausea, vomiting, dizziness, drowsiness and/or euphoria (In poorly ventilated or confined spaces, unconsciousness and asphyxiation may result)
- Skin contact with product can cause frostbite (cold burns).

First aid:

- Eyes – immediately wash eyes with plenty of cold water for at least 15 minutes. Seek medical attention
- Skin & cold burns – immerse skin in tepid water until circulation returns
- Inhalation – immediately remove patient from contaminated area. Keep warm. If breathing has stopped, give artificial respiration. Seek medical help.

Firefighting:

DO NOT use water or foam to extinguish fires - vacate the area and call the Fire Brigade.

Small fires can be attacked with dry powder fire extinguishers. If it is safe to do so, close container valve and allow fire to burn out. Beware of vapour accumulating to form explosive concentrations. Explosive vapours may travel and be ignited at remote locations and flash back.

Accidental release measures:

Evacuate the area, except for personnel dealing with the emergency. Extinguish or isolate power from sources of ignition. Ventilate area. Isolate gas supply to the point of leakage, if safe to do so. Cover drains and sewers etc. Inform authorities if major spillage occurs.

Handling and storage:

- Handling – Cylinders containing propane are designed to give liquid or vapour off-take. Vapour off-take must be used in the vertical position. Liquid off-take must be used in the position indicated on the cylinder.

  A face shield and impervious rubber gloves should be worn when transferring this product as a liquid.

  The risk of inhaling high concentrations of vapour should be avoided by provision of suitable ventilation.

  Storage – The product must be stored in purpose designed mild steel cylinder(s) or tank(s) or other systems of suitable pressure rating. These should be segregated from oxidant gases and other oxidants in store.

  Pipework and handling equipment should be designed for the purpose and be electrically bonded and grounded (earthed) to prevent accumulation of static charge.

  Reference should be made to the relevant Codes of Practice for Safe Storage and Handling of LPG produced by HSE and LPGA (See Section 13).

Exposure control/personal protection:

The following occupational exposure standards have been approved by the Health & Safety Commission on EH40 and are relevant to this product:

	Long-term Exposure Limit (ppm) (8hr TWA)	Short-term Exposure Limit (ppm) (15 min period)
Liquefied Petroleum Gas *	1000	1250

* Pure propane may be regarded as a simple asphyxiant

- **Ventilation** – use the product in a well-ventilated place. Use local ventilation to control exposure of the product to below the recommended limits
- **Respiratory Protection** – should be used if there is a risk of high vapour concentration
- **Hand Protection** – use rubber gloves if in contact with liquid
- **Eye Protection** – use chemical goggles or face shield when handling the product in liquid form
- **Skin Protection** – wear safety boots or shoes when handling cylinders. Wear protective overalls with long sleeves to cover exposed skin.

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Physical and chemical properties:

Appearance	Colourless liquefied gas
Odour	Odourless odorant added to provide a distinctive smell
Boiling Point	-42°C
Flash Point	-104°C (PMCC)
Flammability Limits	2% to 11% in air
Autoflammability	460-580°C
Vapour Pressure	7.5 bar at 15°C
Specific Gravity of Liquid	0.512 at 15°C
Specific Gravity of Vapour	1.5 at 15°C (Air = 1.0)
Solubility in Water	Insoluble

Stability and reactivity:

- **Stability** – can form explosive mixture with air
- **Incompatibility** – propane reacts violently with strong oxidizing agents, peroxide, plastics, chlorine dioxide and concentrated nitric acid
- **Hazardous Decomposition**
- **Products** – normally carbon dioxide (carbon monoxide if deficiency in oxygen supply)

Disposal considerations:

Do not discharge product into areas where there is a risk of forming an explosive mixture with air. Cylinders are the property of Premier Autogas Limited and are returned to us. Emptying of tanks is the responsibility of Premier Autogas Limited.

Transport information:

Classifications for transportation are:

UN Number	1978
Class	2(3) hydrocarbon gasses, liquefied
Classification for Carriage	Flammable gas
Hazchem Code	2YE
ADR/RID	Class 2 liquefied gas (2, 3b)
LATA/ICAO	Class 2

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Regulatory information:

Product Label	F+ Extremely flammable
Risk Phrases	R13 Extremely flammable liquefied gas S16 Keep away from sources of ignition – No Smoking S33 Take precautionary measures against static S9 Keep container in a well-ventilated place
References	The Chemicals (Hazard Information & Packaging for Supply) Regulations 1994 SI No 3247 + Amendment 1996/(1092) The Control of Substances Hazardous to Health Regulations 1994 SI No 3246 + Amendment 1996/3138, 1997/11 The Health & Safety at Work Act 1974

Further information:

The user of this product is advised of the following relevant information:

- Fire Certificates (Special Premises) Regulations 1976 SI No 2003
- Notification of Installation Handling Hazardous Substances Regulations 1982 SI No 1357
- The Storage of LPG at Fixed Installations (UKLPG Code of Practice No.1 Part 1)
- The Keeping of LPG in Cylinders and Similar Containers (UKLPG Code of Practice No.7)

The above publications can be obtained from:

- HSE Books, PO Box 1999, Sudbury, Suffolk CO10 6PS Tel: 01787 881165
- UKLPG, Camden House, Warwick Rd, Kenilworth, Warwickshire CV8 1TH Tel: 01425 461612

The information in this document is believed to represent good practices at the time of publication, however no responsibility or liability is accepted by Premier Autogas Limited for any loss or damage arising out of the information given. It is vital that all persons concerned with the use of this product adhere to all legal requirements, regulations, COP's and standards, particularly those relating to health, safety and environmental measures.

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Operating instructions - vehicle filling:

The retailer/site operator must place **CLEAR USER INSTRUCTIONS AND WARNING NOTICES** (see the following details) for self-service LPG customers in a prominent position at the fuelling point.

If an LPG dispenser is to be located close to other dispensers the warning notices must also be prominent to other vehicle users.

(It is recommended that these notices are also provided in the major languages appropriate to your anticipated customer base).

LIQUEFIED PETROLEUM GAS
EXTREMELY FLAMMABLE

SWITCH OFF ENGINE

APPLY HANDBRAKE

NO SMOKING OR NAKED FLAMES

SWITCH OFF MOBILE PHONES

- Shut down the vehicle's engine and any ignition sources on board, e.g.'pilot lights', apply the handbrake and select the neutral/park gear lever position
- The vehicle operator has a responsibility to examine the tank for soundness and check the periodical re-qualification date marking before connecting the nozzle of the dispenser tothe vehicle's LPG tank
- Do not refill damaged LPG tanks or those not within their test certificate life
- Do not smoke or use mobile telephones
- Remove the cap plug from the filler valve of the vehicle's LPG tank
- Check that the dispenser's filling nozzle has a compatible fitting to the vehicle's filler valve.
- If not, it may be possible to use an adapter which will need to be fixed to the vehicle's filler valve

WARNING – the adapter must ALWAYS be attached to the vehicle's filler valve first. Attempting to attach it to the nozzle will cause the nozzle valve to open causing the release of high-pressure gas with the consequent high risk of COLD BURNS and EXPLOSION or FIRE

- Connect the filling nozzle with swivel clamp to the filler inlet (or adapter). Take care to lay the hose so as not to cause a trip hazard or be liable to be caught by other moving vehicles
- Push the mushroom-type START button on the dispenser
- A "call" signal will now be generated on a remote dispenser controller and when the site operator is satisfied that the fuelling can continue safely, an AUTHORISE command is sent to the dispenser.

- The transaction display will reset to 0000's then display the transaction details as flow commences
- If the START/STOP button is released, the flow will stop
- If the START/STOP button is re-pressed within 5 seconds, then the transaction can continue
- If the START/STOP button is NOT re-pressed within 5 seconds, then the transaction will terminate
- Once the dispenser has stopped, the nozzle can be disconnected from the dispenser and the hose replaced in the holster
- Replace cap plug on the vehicle's filler valve.

Staff training:

Please refer to the references at the end of this manual for guidance on training material.

Because of the particular hazards of LPG as indicated above, it is crucial that ALL site personnel are properly trained to deal with:

- LPG gas escape emergency procedure
- Immediate first aid for cold burns – until qualified medical personnel arrive

The proper use of appropriate personal protective equipment (PPE) which should be readily available for use by staff at all times.

In addition, appropriate staff should be trained to carry out the routine inspection procedure below.

Staff should be on the alert at all times for customer misuse of the equipment and ensure improperlystowed nozzles and hoses are attended to without delay.

REMEMBER – LPG is potentially highly dangerous – if staff have ANY doubt about the safety of the equipment or leakage of gas, they should follow the emergency procedure immediately – any delay could lead to a major incident and fatalities.