

## SAFETY DATA SHEET

DATE REVISED: 01.02.12  
 Supersedes SDS dated: N/A  
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THIS DATA SHEET HAS BEEN PREPARED IN ACCORDANCE WITH CRONER'S HAZARD INFORMATION AND PACKAGING GUIDE

### 1. Identification of the Substance/Preparation and Company Substance or preparation trade name:

Butane-Propane Mix Gas Cartridge  
 (Hydrocarbon Gas Mixture, AO, NOS)  
 Unique reference number(s):  
 2125, 2175, 2250, 2350, 2500  
 Company name, address and normal telephone number:  
 Go Gas Ltd., Unit 1B, East Tame Business Park,  
 Newton, Hyde, Cheshire, SK14 4GX, England  
 T: +44 (0)161 367 1315 F: +44 (0)161 367 1316  
 E: info@gogas.co.uk  
 Emergency telephone no:  
 +44 (0)161 367 1315

### 2. Composition/Information on Ingredients

Preparation: BUTANE (LIQUEFIED PETROLEUM GAS)  

Substance	CAS number:	EC Index number:	EEC number:	Einics number:
Butane	106-97-8	601-004-00-0	203-448-7	270-704-2
Propane	74-98-6	601-003-00-5	200-827-9	200-827-9

 Hydrocarbons C3-4 Rich, Petroleum Distillates, Petroleum Gas Liquefied.  
 Other extremely flammable components.

### 3. Hazards Identifications

- The most important hazards are:
- EXTREMELY FLAMMABLE GAS.
  - EXPOSURE TO HIGH CONCENTRATIONS OF VAPOUR CAN LEAD TO NAUSEA, HEADACHE, DIZZINESS AND IN EXTREME CASES, LOSS OF CONSCIOUSNESS, AND IN OXYGEN DEFICIENT ENVIRONMENTS, DEATH.
  - SKIN CONTACT WITH LIQUEFIED GAS CAN CAUSE COLD BURNS.



### 4. First Aid Measures

Immediate medical attention required: Yes  
 Professional assistance from physician required: Yes  
 Summary of first aid is as follows:  
 Inhalation: Remove subject to fresh air as soon as possible using self contained breathing apparatus if appropriate to protect rescuer. If subject breathing, keep warm and at rest, preferably lying down. Do not leave the subject. Remove contaminated clothing if possible. If subject has stopped breathing, give appropriate artificial respiration (preferably with a brook airway). When breathing starts, place subject in recovery position. Do not leave the victim. Get medical assistance as soon as possible, remove to hospital for further treatment. Give oxygen if available (short applications, not continuous therapy).  
 Skin contact: Immediately drench skin with cold water, irrigating the affected area for 10 minutes. As soon as possible get medical aid and/or remove subject to hospital for specialised treatment.  
 Eye contact: Immediately drench eyes with cold water, irrigating the affected area for 10 minutes. As soon as possible get medical aid and/or remove subject to hospital for specialised treatment.  
 Ingestion: Remove subject to fresh air as soon as possible, and follow the guidelines for 'Inhalation' above.

### 5. Fire-Fighting Measures

Suitable extinguishing media:  
 Dry powder - Use water fog/spray to contain the fire.  
 Unsuitable extinguishing media:  
 Standard water jet fire hoses can spread the fire and may cause dangerous explosions.  
 Special exposure hazards in fire:  
 Danger of explosion in enclosed space - keep nearby gas containers cool with water spray.  
 Required special protective equipment for fire fighters:  
 Fires involving gases usually give off TOXIC FUMES and VAPOURS. Approach fire or gas leaks with caution from upwind and with respiratory protection if available.

### 6. Accidental Release Measures

Personal precautions: If there is a leakage from a small amount of gas, evacuate people from the immediate danger area, and the area in the path of the gas cloud, if possible. Switch off all sources of ignition. No smoking. Isolate leaking container(s), if possible. Stop leak at source. If leakage cannot be stopped, remove container(s) to an isolated area, clear of buildings, people and sources of ignition.  
 Environmental precautions: If possible, allow gas to be released slowly into the atmosphere to produce a harmless dilution. Disperse gas using a hose reel fitted with a water spray or fog nozzle, or by air agitation.  
 Methods for cleaning: Attempts should be made to prevent gas vapours entering drains or gullies. Vapours will disperse to atmosphere if sufficient air flow is available.  
 Where appropriate refer to information under headings "8. Exposure controls" and "13. Disposal considerations"

### 7. Handling and Storage

Handling: GoSystem gas cartridges are supplied from the factory in Fibreboard Combination Packages of 12 gas cartridges per package. Packages should be handled with care and kept upright when transferring the packages.  
 Storage: The storage of LPG is subject to legislative controls. The primary piece of legislation affecting the storage of LPG is the Highly Flammable liquids and Liquefied Petroleum Gases Regulations 1972. LPG must be stored in purpose built Containment systems.  
 LPG Code of practice 7 should be consulted in order to comply with the legislation (obtainable from HMSO book shops and the LP. Gas Association).

### 8. Exposure Controls

Take measures to prevent:  
 Physical contact with liquid gas. Exposure to gas vapour in enclosed spaces.  
 Exposure Control Limits, and source:  
 Relevant only to unburned gases. The following exposure limits are taken from the Health & Safety Executive Guidance Note EH40/2005 Workplace exposure limits.  
 Workplace Exposure Limits:  
 Butane-Propane Gas Mixture (A.O.):  
 1450 mg/cubic metre (600ppm) 8-hour TWA value.  
 1810 mg/cubic metre (700ppm) 15-min TWA value.  
 Liquefied Petroleum Gas:  
 1750 mg/cubic metre (1000ppm) 8-hour TWA value.  
 2180 mg/cubic metre (1200ppm) 15-min TWA value.  
 Respiratory protection:  
 Should be used if there is a risk of high vapour concentration.  
 Hand protection:  
 Use rubber gloves if in contact with liquid.  
 Skin protection:  
 Wear protective overalls with long sleeves to protect exposed skin.  
 Eye protection:  
 Use goggles or face shield when handling in liquid form.  
 When used as a fuel source, the above controls will not be necessary. However, products fuelled by LPG should always be used in well ventilated areas, preferably outdoors.

### 9. Physical and Chemical Properties

Appearance: Colourless  
 Odour: Distinctive and unpleasant (stretched)  
 pH: Neutral  
 Boiling point/boiling point range: -42 Deg.C.  
 Flashpoint (°C) closed cup: Less than -40 Deg.C.  
 Flammability (gas/solid): Not applicable  
 Autoflammability: 410/550 Deg.C.  
 Explosive properties: Not applicable  
 Oxidising properties: Not applicable  
 Vapour pressure: 4.1 bar @ 20 Deg.C.  
 Relative density: @ 15 Deg.C. 0.55 to 0.56  
 Solubility (water and fat): Immiscible

### 10. Stability and Reactivity

Conditions to avoid:  
 Sources of ignition (store below 50 Deg.C).  
 Materials to avoid:  
 Strong oxidising agents, e.g. chlorates which may be used in agriculture.  
 Hazardous decomposition:  
 The substances arising from the thermal decomposition of these products will largely depend on the conditions bringing about decomposition. The following substances may be expected from normal combustion:  
 Carbon Dioxide:  
 Polycyclic Aromatic Hydrocarbons  
 Carbon Monoxide:  
 Unburned Hydrocarbons  
 Water:  
 Unidentified Organic and Inorganic Compounds  
 Particulate Matter:  
 Nitrogen Oxides

### 11. Toxicological Information

Acute Health Hazards and Advice.  
 Liquefied Butane Gases under normal conditions of storage and use are not likely to present a health hazard. The gas is heavier than air and in the event of a spillage will collect in depressions, pits, drains, confined spaces, etc., where it can present a health hazard.

#### Inhalation

Exposure to higher concentrations of Liquefied Butane Gases can lead to drowsiness, unconsciousness, and subsequent asphyxiation. Very high concentrations can lead to abnormal heart rhythms and possibly death.  
 Precautions: Inhalation of vapours should be avoided. Where, exceptionally, higher concentrations of vapour are likely to be present, e.g. in the event of a spillage in a badly ventilated area, persons should not be allowed to enter the area, even in an emergency, until the atmosphere has been checked and passed as safe for entry by a competent person.  
 First Aid: Remove the affected person to fresh air. If breathing has stopped administer artificial respiration. Give external cardiac massage if necessary. If the person is breathing, but unconscious, place in the recovery position. Obtain medical assistance immediately.

#### Skin

Skin contact with Liquefied Butane Gases, occurring as a result of the rapid evaporation of the liquid gas, may result in cold burns.  
 Precautions: Avoid contact with the skin by the use of suitable protective clothing.  
 First Aid: Burns should be flushed with water to normalise temperature. Cover the burns with sterile dressings. Do not apply ointments or powders. Obtain medical attention.

#### Eyes

Eye contact with rapidly evaporating Liquefied Butane Gases may cause cold burns.  
 Precautions: If there is a risk of eye contact when handling the liquid, suitable eye protection should be used.  
 First Aid: Burns should be flushed with water to normalise temperature. Cover the eye with a sterile dressing and obtain medical attention immediately.

#### Ingestion

Whilst this is not a normal hazard associated with Liquefied Butane Gases, abuse by inverting gas containers can result in the liquid being ingested. In these circumstances the hazards are the same as for inhalation.  
 Precautions: Liquefied gas should never be ingested.

First Aid: Remove the affected person to fresh air. If breathing has stopped, administer artificial respiration. Give external cardiac massage if necessary. If the person is breathing, but unconscious, place in the recovery position. Obtain medical assistance immediately.  
 Notes for Doctors: No special information.

### 12. Ecological Information

Possible effects:  
 No known effects on the environment.  
 Behaviour:  
 No known ecological damage will be caused by this product.  
 Environmental fate:  
 When released to Air, soil and water, the majority of the product will rapidly evaporate.

### 13. Disposal Considerations

Likely residues/waste product (if any):  
 No known residues. Waste product: Metal Container.  
 Safe handling of any residues/waste product:  
 Any disposal route should comply with local by-laws and the requirements of the Environment Protection Act, 1990. Liquefied Butane Gases are subject to the Control of Pollution (Special Waste) Regulations 1980. For disposal of surplus quantities of GoSystem gas containers, contact your local supplier, or representative

### 14. Transport Information

Classification for carriage:	Flammable gas
ARD/RID Proper shipping name:	Mixture of gases listed under 11°/5°(b) Butane (Liquefied Petroleum Gas).
Preparation identification number:	1965 (1075) Mixture AO, NOS, ARD
Land transport ADR / RID	
ARD / RID Class:	2
UN Number:	2037
Hazard Class:	5F
Packing group:	- Combination packages (Fibreboard) - Limited Quantities
Labels:	2.1
Name and description:	RECEPTACLES SMALL CONTAINING GAS (GAS CARTRIDGE)
Marine Transport IMDG	
IMDG Class:	2
UN Number:	2037
Packing group:	- Combination packages (Fibreboard) - Limited Quantities
Labels:	2.1
Name and description:	RECEPTACLES SMALL CONTAINING GAS (GAS CARTRIDGE)
Air transport ICAO / IATA	
ARD / RID Class:	2.1
UN Number:	2037
Packing group:	- Combination packages (Fibreboard) - Limited Quantities
Labels:	2.1
Name and description:	RECEPTACLES SMALL CONTAINING GAS (GAS CARTRIDGE)

### 15. Regulatory Information

Supply label information: This information has been classified according to the requirements of the Dangerous Substances Directive 67/548/EEC and the Preparations Directive 88/379/EEC.

#### Dangerous for supply:

Symbols:	Flame
Category of Danger:	Extremely Flammable
Risk Phrases:	R12 Extremely Flammable
Safety Phrases:	S2 Keep out of reach of children S9 Keep container in a well ventilated place S16 Keep away from sources of ignition



#### Applicable EU Provisions and associated UK legislation:

Dangerous substances Directive 67/548/EEC  
 The Preparations Directive 88/379/EEC  
 The Chemicals (Hazard Information & Packaging for supply) Regulations 2002 (SI No.1689) (CHIP3).  
 The Control of Substances Hazardous to Health (Amendment) Regulations 2004 (COSHH 2004).

### 16. Other Information

Training advice:  
 The most important considerations are handling and storage. Code of Practice 7, referenced below gives all the necessary information required.  
 Further information:  
 Code of Practice 7 Storage of Full and Empty LPG Cylinders and Cartridges.  
 Sources of key data used to compile safety data sheets:  
 Croner's Dangerous Substances  
 Shell Gas Technical and Safety Data Sheet. Shell UK Ltd.  
 IMCO Guide  
 Approved Supply List  
 Other:  
 ARD/RID Regulations  
 The data contained in this Safety Data Sheet has been supplied as a requirement by the Chemicals (Hazard Identification and Packaging for Supply) Regulations 2002, for the purpose of protecting the health and safety of industrial and commercial users who are deemed capable of understanding and acting on the information provided.  
 Please ensure that it is passed to the appropriate person(s) in your company, who are capable of acting on the information.