



# Technical Publication

Bullfinch (Gas Equipment) Ltd Data Sheet – Liquefied Propane Gas

Safety Data Sheet NO.1 REV. 04  
(03/10/2019)  
Replaces all other revisions.

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This safety data sheet (SDS) has been prepared in accordance with the requirements of EU Regulations 1907/2006 & 453/2010(REACH) and 1272/2008 & 2015/830(CLP).

## 1. Identification of the substance / Mixture and of the Company/Undertaking

<b>1.1 Product Identifier</b>	
Substance Name	Liquefied Propane Gas (odorized)
Product Description	Liquefied Propane Gas Consisting predominantly C <sub>3</sub> Hydrocarbons supplied as a fuel in a closed system meeting the requirements of BS4250 with <0.1% 1,3 Butadiene.
Trade Name(s)	Bullfinch 1644 Propane 400g
CAS Number	74-98-6
EC Number	200-827-9
Reach Registration Number	Exempt (Annex V) as Liquefied Petroleum Gas (LPG)
<b>1.2 Relevant identified uses of the substance or mixture and uses advised against</b>	
Identified Uses(s)	Multipurpose fuel packaged in disposable cylinders mainly indented for soft soldering, small brazing applications.
Uses Advised Against	Non-identified.
<b>1.3 Details of the Supplier of the Safety Data Sheet</b>	
Company	Bullfinch (Gas Equipment) Ltd
Address	Diadem Works, Kings Road, Tyseley, Birmingham B11 2AJ
Telephone	01217652000
Website	www.bullfinch-gas.co.uk
Email	sales@bullfinch-gas.co.uk
<b>1.4 Emergency Telephone Number</b>	
Emergency Number	01217652000 (Mon-Fri 9:00 – 5:30)
Language Spoken	English

## 2. Hazards Identification

### 2.1 Classification of substance or mixture:

Classification according to Directive 67/548/EEC or 1999/45/EC  
F+; R12 – Extremely Flammable

#### 2.1.1 Classification:

The substance is classified as the following according to REGULATION (EC) No 1272/2008:

REGULATION (EU) No 1272/2008	
Hazard classes/Hazard categories	Hazard statement
Press. Gas	H280
Flam. Gas 1	H220

## 2.2 Label elements:

Hazard Pictograms:



Signal Word(s): Danger

Hazard Statement: H220: Extremely flammable gas  
H280: Contains gas under pressure; may explode if heated

Precautionary Statement: P210: Keep away from heat, Hot surfaces, sparks, open flames and other ignition sources. No Smoking.  
P377: Leaking gas fire: Do not extinguish, unless leak can be stopped safely.  
P381: Eliminate all ignition sources if safe to do so.  
P403: Store in well ventilated place.  
P410 + P403: Protect from sunlight. Store in well ventilated place

## 2.3 Other Hazards:

The other substance is not PBT / vPvB.

## 3. Composition/information on ingredients

Substance/Mixture: Substance

Ingredients:

Chemical Name	Registration No.	CAS No.	EC No.	Concentration
Propane	N/A	74-98-6	200-827-9	100%

## 4. First aid measures

### 4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist seek medical attention.

#### 4.1.1 In case of inhalation:

Move to fresh air. Do not leave the victim unattended. Keep patient warm and at rest. If unconscious place into the recovery position. Seek medical attention. If breathing is difficult give oxygen if possible or assisted ventilation. In the event of cardiac arrest, (no pulse) apply cardiac pulmonary resuscitation.

#### 4.1.2 In case of skin contact:

Do not remove clothing that adheres due to freezing. Immediately flush affected area with plenty of water – continue for at 15 minutes. If there are signs of frostbite (blanching or redness of the skin or tingling sensations) do not rub, massage or compress the affected area, send casualty immediately to hospital.

#### 4.1.3 In case of eye contact:

Remove any contact lenses, flush eyes with water thoroughly and continuously for 15 minutes. Keep eye wide open during rinsing. If there are signs of frostbite, pain, swelling, lachrymation or photophobia persists the patient should be seen in a specialist at hospital.

#### 4.1.4 In case of ingestion:

Is not considered a likely route of exposure – frostbite to the lips and mouth may occur if in contact with the liquid.

#### 4.2 Most important symptoms and effects, both acute and delayed:

This product is not classified as harmful to human health effect.

#### 4.3 Indication of any immediate medical attention and special treatment needed:

If skin irritation or rash occurs, get medical advice / attention.

## 5. Firefighting measures

### 5.1 Extinguishing media:

#### Suitable extinguishing media:

Large Fire: Use water spray, water fog or foam.  
Small Fire: Dry powder or carbon dioxide (CO<sub>2</sub>) extinguisher, dry sand or firefighting foam.

#### Unsuitable extinguishing media:

Do NOT use water jet, simultaneous use of foam and water on the same surface is to be avoided as water destroys foam.

### 5.2 Special hazards arising from the substance or mixture:

Carbon monoxide, carbon dioxide and unburnt hydrocarbons (smoke).  
Vapour is denser than air – flashback maybe a possibility over considerable distances.

### 5.3 Advice for firefighters:

Self-contained breathing apparatus with full face mask and full protective clothing (standard wear)

## 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures:

#### 6.1.1 For non-emergency personnel:

Stop leak if safe to do so. Avoid direct contact with released material and breathing vapours. Stay upwind, keep non-involved personnel away from the area of the spillage. Alert emergency personnel. Enter area only if strictly necessary. A combustible gas detector can be used to check for flammable gas or vapours. Eliminate all ignition sources if safe to do so. (e.g. electrical, sparks, fires, flames, etc...) if required, notify relevant authorities according to applicable regulations. Wear personal protective clothing (PPE) including self-contained breathing apparatus, unless atmosphere is proved to be safe.

#### 6.1.2 For emergency responders:

wear an appropriate NIOSH/MSHA approved respirator if gas is generated.

### 6.2 Environmental Precautions:

Prevent further leak or spillage if safe to do so. Prevent spillage from entering drains or any place accumulation be able to occur. Ensure adequate ventilation, especially in confined areas. If the spillage has or is going to contaminate rivers, lakes or drains inform relative authorities immediately.

### 6.3 Methods and material for containment and clean up:

Contain spillage – ventilate area and allow to evaporate.

### 6.4 Reference to other sections:

See section 7 for information on safe handling.  
See section 8 for information on personal protection equipment.  
See section 13 for information on disposal.

## 7. Handling and Storage

### 7.1 Precautions for safe handling:

#### 7.1.1 Protective measures:

Consider technical advances and process upgrades (including automation) for elimination of release. Minimise exposure using measures such as closed systems, dedicated facilities and suitable general/ local exhaust ventilation. Drain down systems and clear transfer lines prior to breaking containment. Clean/flush equipment, where possible prior to maintenance. Consider the need for risk-based health surveillance. Ensure safe systems of work or equivalent arrangements are in place to manage risks. Regular inspection, test and maintain control measures. Smoking, eating and drinking should be prohibited. Use only in well ventilated areas. Avoid all sources of ignition, oxidising agents, chlorine and hydrogen fluoride. Take precautionary measures against discharge, use proper bonding and/or grounding procedures. Use piping and equipment designed to withstand the pressures to be encountered. Use a check valve or other protective device to prevent reverse flow. Cleaning, inspection and maintenance of the internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. Handle empty containers with care; vapour residue maybe flammable. Do not pressurise, cut, weld, braze, solder, drill or grind on containers. Dispose of rinse water in accordance with local and national regulations. The vapour is heavier than air, beware of accumulations in pits and confined spaces. Ensure that all relevant regulations regarding explosive atmospheres, and handling and storage facilities of flammable products are followed.

#### 7.1.2 Advice on general occupational hygiene:

Do not eat, drink and smoke in work areas.

#### 7.3 Specific end use(s):

Not applicable.

## 8. Exposure Controls/Personal Protection

### 8.1 Control parameters

#### 8.1.1 Occupational exposure limits:

Country	Substance	EINECS No.	CAS No.	Occupational Exposure Limits value (8hours ref: period)		Occupational Exposure Limits Value (15 minutes Ref: Period)		
				Ppm	Mg/m <sup>3</sup>	Ppm	Mg/m <sup>3</sup>	Note
Ireland	Propane	200-827-9	74-98-6	-	-	-	-	Asphx.

#### 8.1.2 Additional exposure limits under

##### The conditions of use:

Not available

#### 8.1.3 DNEL/DMEL and PNEC-Values:

Not available

### 8.2 Exposure Controls:

#### 8.2.1 Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the work day.

### 8.2.2 Individual protection measures, such as personal protective equipment:

<b>Eye/face protection:</b>	Close fitting protective goggles or face protection
<b>Hand protection:</b>	Glove material suitable protective gloves, e.g. nitrile- butadiene rubber (NBR) gloves, leather gloves, heat insulating.
<b>Body protection:</b>	select materials and equipment for physical protection depending on the concentration and volume of hazardous substances and the workplace involved.
<b>Respiratory protection:</b>	In case of dust/vapours/aerosols being formed or if the limit values like TLV are exceeded: if concentrations in the breathed air are low: Respirator with brown AX-type filter. Put on Respiratory protective equipment independently of surrounding air with high gas/vapour concentrations.
<b>Thermal hazards:</b>	wear suitable protective clothing to prevent heat.

**8.2.3 Environmental exposure controls:** Avoid discharge into the environment. According to local regulations, federal and official regulations.

## 9. Identification of the substance / Mixture and of the Company/Undertaking

### 9.1 Information on basic physical and chemical properties:

<b>Appearance:</b>	Gas
<b>Colour:</b>	Colourless
<b>Odour:</b>	Odorant added to provide a distinctive smell.
<b>Odour Threshold:</b>	<20% of lower Flammable limit.
<b>pH:</b>	Not available
<b>Melting point / range (°C):</b>	-187.6 °C
<b>Boiling point/range (°C):</b>	-161.48 °C
<b>Flash point (°C):</b>	-88.6 °C
<b>Evaporation rate:</b>	Not available
<b>Flammability limit – lower (%):</b>	Not available
<b>Flammability (Solid, Gas):</b>	Extremely flammable
<b>Ignition temperature (°C):</b>	Not available
<b>Upper/lower exposure limits:</b>	15% / 5%
<b>Vapour pressure (20 °C):</b>	Not available
<b>Vapour Density:</b>	Not available
<b>Relative Density:</b>	0.57 g/cm <sup>3</sup> (25 °C)
<b>Bulk Density (Kg/m<sup>3</sup>):</b>	Not available
<b>Water solubility (g/l):</b>	24.4 mg/L (25 °C)
<b>n-Octanol/Water (log Po/W):</b>	1.09 (20 °C)
<b>Auto-ignition temperature:</b>	537 °C
<b>Decomposition temperature:</b>	Not available
<b>Viscosity, dynamic (mPa.s):</b>	11.2 µPa at 27 °C
<b>Explosive properties:</b>	Not available
<b>Oxidising properties:</b>	Not available
<b>Molecular Formula:</b>	C <sub>3</sub> H <sub>8</sub>
<b>Molecular weight:</b>	44.1

### 9.2 Other information:

<b>Fat solubility (solvent-oil to be specified)</b>	Not available
<b>Surface tension:</b>	Not available
<b>Dissociation constant in water (pKa)</b>	Not available
<b>Oxidation reduction Potential:</b>	Not available

## 10. Stability and reactivity

<b>10.1 Reactivity:</b>	The substance is stable under normal storage and handling conditions.
<b>10.2 Chemical Stability:</b>	Stable at room temperature in closed containers under normal storage and handling conditions.
<b>10.3 Possibility of hazardous reactions:</b>	No dangerous reactions known.
<b>10.4 Conditions to avoid:</b>	Keep away from heat and sources of ignition.
<b>10.5 Incompatible materials:</b>	Strong oxidising agents, chlorine, oxygen.
<b>10.6 hazardous decomposition products:</b>	Oxides of carbon.

## 11. Toxicological information

### 11.1 Information on toxicological effects:

<b>Acute toxicity:</b>	
LD50(oral, rat):	Not available
LD50(Dermal, Rabbit):	Not available
LD50(Inhalation, Rat):	Not available
<b>Skin corrosion/Irritation:</b>	Not classified
<b>Serious eye damage/irritation:</b>	Not classified
<b>Respiratory or Skin sensitization:</b>	Not classified
<b>Germ cell mutagenicity:</b>	Not classified
<b>Carcinogenicity:</b>	Not classified
<b>Reproductive toxicity:</b>	Not classified
<b>STOT – single exposure:</b>	Not classified
<b>STOT – repeated exposure:</b>	Not classified
<b>Aspiration hazard:</b>	Not classified

## 12. Ecological information

### 12.1 Toxicity:

<b>Acute (short-term) toxicity:</b>	
LC50(96h, Fish):	49.9 mg/L
LC50(48h, Crustacea):	69.43 mg/L
LC50(96h, Algae/aquatic plants):	19.37 mg/L
<b>Chronic (Long-term) toxicity:</b>	
NOEC(Fish):	Not available
NOEC(Crustacea):	Not available
EC50(Algae/aquatic plants):	not available
<b>12.2 Persistence and degradability:</b>	Readily biodegradable.
<b>12.3 Bio accumulative potential:</b>	Not available
<b>12.4 Mobility in Soil:</b>	Not available
<b>12.5 Results of PBT and vPvB assessment:</b>	The substance is not PBT / vPvB.
<b>12.6 Other adverse effects:</b>	Not available

## 13. Disposal considerations

### 13.1 Waste treatment methods:

Dispose of in accordance with all applicable local and national regulations. Use recovery/recycling where feasible. Otherwise incineration is the recommended method of disposal. Empty containers may contain hazardous residues. Do not cut, puncture or weld on or near to the container. Labels should not be removed from containers until they have been cleaned. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers.

## 14. Transport Information

	Land Transport (ADR/RID)	Inland Waterways (ADN)	Sea Transport (IMDG)	Air Transport (ICAO/IATA)
UN number	1978	1978	1978	1978
UN Proper shipping name	Propane	Propane	Propane	Propane
Transport hazard class(s)	2.1	2.1	2.1	2.1
Packing Group	-	-	-	-
Environmental hazard	No	No	No	No
Special precautions for user	See section 2.2	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to	-	-	-	-

## 15. Regulatory Information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

Relevant information regarding authorization:

Not applicable

Relevant information regarding restriction:

Not applicable

Other EU regulations:

Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.

Other National regulations:

Not applicable

### 15.2 Chemical safety assessment:

Yes

No

## 16. Other Information

### 16.1 Indication of changes:

Version 1.0 Amended by (EU) 2015/830

### 16.2 Abbreviations and acronyms:

ADR: European Agreement concerning the International carriage of Dangerous Goods by Road  
RID: Regulation for rail International Transport of Dangerous Goods  
AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
IMDG: Code international maritime dangerous goods code  
ICAO: International Civil Air Transport Association  
LC50: Median lethal concentration  
EC50: The effective concentration of substance that causes 50% of the maximum response.  
NOEC: No Observed Effect Concentration  
DNEL: Derived n-effect level  
PNEC: Predicted no-effect concentration

### 16.3 Key literature reference and source data:

ECHA Registered substances data

### 16.4 Classification and procedure used to derive the classification for mixtures according to Regulation (EC):

1272/2008 [CLP]

Classification according to Regulation (EC) No. 1272/2008		Classification procedure
Press. Gas	H280	On basis of test data
Flam. Gas 1	H220	On basis of test data

### 16.5 Relevant H-statements (number and full text):

H220: Extremely flammable gas  
H280: Contains gas under pressure; may explode if heated

### 16.6 Training instructions:

Not applicable

### 16.7 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

### 16.8 Notice to reader:

Employer should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and use of the product not in conformance with Safety Data Sheet, or in combination with any other product or process, is responsibility of the user.