



## Material Safety Data Sheet.

### Propane.

#### Section 1 – Product and company identification.

Bullfinch (Gas Equipment) Limited  
Diadem Works,  
Kings Road,  
Tyseley,  
Birmingham B11 2AJ.  
Tel: 0121 706 6301

Product Name: Propane  
Chemical Name: Propane.  
Chemical Formula: C<sub>3</sub> H<sub>8</sub>

#### Section 2 – Hazards Identification.

**Warning:** Flammable gas under pressure. Can form explosive mixtures with air. At very high concentrations, can displace normal air and cause suffocation from lack of oxygen.

**Potential Health effects:**

**Eyes:** Contact with liquid or gas under pressure can cause frost bite (cold burns).

**Skin:** Contact with liquid can cause frost bite (cold burns).

**Inhalation:** Simple asphyxiant. Inhalation may cause irritation to the nose and throat, headache, nausea, vomiting, dizziness, euphoria, drowsiness. In poorly ventilated or confined spaces, unconsciousness and asphyxiation may result.

**Chronic Effects:** None.

**Medical conditions aggravated by:** None:

#### Section 3 - First Aid Measures:

**Eyes:** Flush eyes with plenty of lukewarm water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids. Obtain medical attention immediately.

**Skin:** In case of frostbite or cold burns, immediately apply lukewarm water (do not exceed 105°F [40°C]) to the affected area until circulation returns.

**Ingestion:** None.

**Inhalation:** Immediately remove affected person from contaminated area. Keep warm and at rest. If breathing has stopped or shows signs of stopping, commence artificial respiration. Summon immediate medical attention.

#### Section 4 - Fire Fighting Measures:

**Flash Point:** -104°C  
**Auto flammability:** 460 – 580°C  
**Flammability Limits:** 2% to 11% in air.

- Vacate the area immediately and call the Fire Brigade.
- Small fires can be attacked with dry powder fire extinguishers.
- If it is safe to do so, close the container valve and allow the fire to burn out. If unable to cut off the gas supply allow it to burn. If it is not possible to remove any neighbouring gas containers from the immediate area, keep them cool with water spray.
- Beware of vapour accumulating to form explosive concentrations. Explosive vapours may travel from the source, be ignited and flash back. Water spray may be used for vapour dispersal.
- In confined spaces use self-contained breathing apparatus.

DO NOT use water or foam to extinguish fires.

#### **Section 5 – Accidental release Measures:**

- Evacuate everyone from the area, with the exception of those dealing with the emergency.
- Isolate or extinguish power from sources of ignition.
- Ventilate the area.
- If safe to do so, isolate gas supply to the point of leakage.
- Disperse vapour clouds with water spray.
- Cover drains, sewers, entrances to basements etc.
- Inform authorities if major spillage occurs.

#### **Section 6 – Handling and Storage.**

**Handling:** Non-refillable cylinders containing propane should be stored in the vertical position with the connection thread protective cover in position. Cylinder storage should be segregated from oxidizers such as oxygen, chlorine, etc. and away from heavy traffic areas to prevent knocking over or damage from falling objects.  
Reference should be made to the relevant Codes of Practice for Safe Storage and Handling of LPG produced by H&SE and LPGA.

#### **Section 7 – Exposure Controls – Personal Protection.**

**Ventilation:** Use the product in a well ventilated area. Use local ventilation to control exposure of the product to below the recommended limits.

**Respiratory Protection:** If there is a risk of high vapour concentration then respiratory protection should be used.

**Eye Protection:** Use chemical goggles or face shield if contact with liquid propane is possible.

**Protective Clothing:** Use protective clothing, face shield and gloves if contact with liquid propane is possible.

#### **Section 8 – Physical and Chemical Properties.**

**Appearance:** Colourless liquefied gas.

**Boiling Point:** -42°C.

**Flash Point:** -104°C.

**Flammability Limits:** 2% to 22% in air.

**Auto Flammability:** 460 – 580°C.

**Vapour Pressure:** 7.5 bar at 15°C.

**Specific Gravity (Liquid):** 0.512 at 15°C. (Water = 1.0).

**Specific Gravity (Vapour):** 1.5 at 15°C. (Air = 1.0).

**Solubility in Water:** Insoluble.

#### **Section 9 – 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:**

Normal combustion produces carbon dioxide; incomplete combustion can produce carbon monoxide.

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**Section 10 – Toxicology Information.**

<b>Eye Contact:</b>	Not applicable.
<b>Skin Contact:</b>	Not applicable.
<b>Inhalation:</b>	Not determined.
<b>Carcinogenicity:</b>	No known behaviour.
<b>Mutagenicity:</b>	No known behaviour.
<b>Teratogenicity:</b>	No known behaviour.

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**Section 11 – Ecological Information.**

No known ecological damage caused by this product.

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**Section 12 – Disposal Considerations.**

Releases of vapour are expected to cause only localized non-persistent environmental damage. Waste mixtures containing these gases should not be allowed to enter drains or sewers where there is a danger of the vapours being ignited. When it becomes necessary to dispose of these gases, it is preferable to do so as vapour. These gases may be used as an auxiliary fuel or disposed of by flaring in a properly designed flare or incinerator.

Empty disposable propane gas cartridges may be disposed of safely by using the Bullfinch Valve Extraction Tool No. 6082 and following the instructions provided.

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**Section 13 – Transport Information.**

<b>UN Classification number:</b>	UN 1075
<b>Proper shipping name:</b>	Liquefied Petroleum Gas (LPG).
<b>Class:</b>	2(3) Hydrocarbon gases, liquefied.
<b>Classification for Carriage:</b>	Flammable gas.
<b>Hazchem Code:</b>	2WE.
<b>ADR/RID:</b>	Class 2. Liquefied Gas (2,3b).

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**Section 14 – Other Information.**

Further information regarding the use and storage of LPG can be obtained from the LPGA, Pavillion 16, Headlands Business Park, Salisbury Road, Ringwood, Hampshire, BH24 3PB. (Tel. 01425 461612 Fax. 01425 471131).

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