



Material Data Safety Sheet (MSDS) ver3.40

Fuel Cells for Cordless Nail Tools As per European Commission 2001/58/RC

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1. Identification of the substance or preparation

Propane, n-Butane, iso-Butane contained in liquid form.
Flammable and Class 2.1

1.2. Use of the substance/preparation

To activate cordless nail gun, bradder & concrete gun/Propane and butane liquefied

1.3. Company/undertaking identification

bbi fasteners limited.
PO Box 38881, Howick, Auckland
6 Grayson Ave, Manukau, New Zealand.

1.3. Emergency telephone +64 21 033 3324

2. COMPOSITION/INFORMATION ON INGREDIENTS

2.1. Propane and Butane liquefied

2.2. Propane and Butane Mixture: Concentration Range Propane 57% to 70% balance n-Butane, iso-butane.

2.3. Propane and Butane Mixture: CAS Number: 68476-85-7

3. HAZARDS IDENTIFICATION

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BBI Fasteners Material Safety Data Sheet Issue

Fuel Cell for Cordless Nail Tools.

Date: 25 May 2012

Version : 3.40

**3.1 Dangerous Goods
Non-Hazardous Substance**

3.2 Risk: Explosive Nature if heated in confinement & Extremely Flammable

3.3 Hazardous Ingredients: Propane and Butane Mix

4. FIRST AID MEASURES

- 4.1 Inhalation:** Do not breath the Gas, may cause asphyxiation in high concentrations or toxic
Effect
- 4.2 Skin:** - Direct Contact with Liquefied gas can cause frostbite
- Wash exposed area with cold water for at least for 10 minutes, don't rub area,
- Just flush with water Or soak
- Do not use hot water, Dress with a clean & dry dressing
- Take patient to nearest hospital or Doctor
- 4.2 Eyes:** Direct Contact with Liquefied gas can cause frostbite
-Open eyelids to allow any gas/fluid top escape
-Flush out effected eye with cool water for 15 minutes
-Don't allow patient to rub the eyes
-If sensitive to light gently apply bandage
- 4.3 Ingestion:** -Direct contact with Liquefied gas can cause frostbite to internal organs & Tissue. Do not induce vomiting
-Provide clean, cool drinking water for patient to rinse their mouth & then advise Patients, to drink Water, if comfortable to them.

5. FIRE-FIGHTING MEASURES

- 5.1 Extinguishing media:** Carbon Dioxide, Water Spray
- 5.2 Others:** -Isolate hazard area & evacuate unprotected personnel
-Full emergency equipment with self contained breathing apparatus & full protective clothing should be worn by fire fighters.
-Prevent spillage from entering drains or waterways
-Don't approach heated Aerosols until cooled
-Remove Aerosols from path of fire if safe to do so.
- 5.3 Fire/Explosive Hazard:** -Extremely flammable
-Will form explosive mixture with air
-Flash back may occur If vapor travel to an ignition point.
-Aerosols may explode when ruptured
-Exposure to gas may cause frostbite, burns or injury
-Explosion hazard if exposed to flame or spark.

5.4 Hazchem : 2 WE

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5.5 Personal Protective Equipment: Breathing Apparatus & Gas tight chemical resistant suit

6. ACCIDENTAL RELEASE MEASURES

- 6.1 **Minor Spills:**
- Shut off all sources of ignition
 - Clear area of all personnel
 - Do not enter area where gas may have accumulated
 - Avoid breathing gas & any contact with Liquid
 - Enter the area with protective equipment with breathing apparatus
 - Remove leaking Aerosols to a safe well-ventilated area
 - Do not enter the area until gas has been dispersed
- 6.2 **Major Spills:**
- All unprotected personnel must be cleared from the area
 - Alert emergency service of the incident & location
 - Enter area with protective equipment & respirator
 - Turn off all the possible sources of ignition
 - Use water spray to disperse vapor
 - Keep clear until gas has dispersed fully & stop entry of unauthorized

personnel

7. HANDLING AND STORAGE

- 7.1. **Handling:** Container needs to be handled with care to avoid puncture, don't puncture even if empty
- 7.2 **Storage:**
- Store in well ventilated area, recommended Storage temperature below 50 C
 - No smoking, naked flame, heat or ignition sources, Do not store in pits or depressions or where no air circulation occurs.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1. **Exposure limit values:** Threshold limit value (TLV) – 1000ppm (1800mg/m3)
- 8.2. **Exposure controls**

Eye Protection: Eye protection must be worn when handling Aerosols
 Skin Protection: Gloves are recommended when handling Aerosols

8.2.1 Respiratory / Ventilation protection

- In worst case scenario a respiratory protection device may be required
- Under normal use Containers should be used in well-ventilated area
- If ventilation is insufficient a suitable breathing protection should be worn

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9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General information

Appearance	: Liquefied Gas
Colour	: Colourless
Odor	: Odorless
Boiling Point	: - 42 C to 0 C approx
Flash Point	: - 104 C to - 60 C approx
Freeze Point	: - 184.5 C approx
Specific Gravity	: 0.54 kgs/Lt in Liquid form approx
Vapor Pressure	: 6.9 Bar at 21.2 C approx
Vapor Density	: approx 1.5(air=1)
Auto Ignition Temperature	: 494 C approx
Flammability Limits	: 1.5 % to 9.6 % in air (v/v)
Solubility in Water	: Slightly

10. STABILITY AND REACTIVITY

- 10.1 Stability: Product is Stable in normal working conditions
- 10.2 Hazardous Polymerization: will not Occur
- 10.3 Incompatibilities: Oxidizing Agents, Halogens & acids
- 10.4 Decomposition: Burning may produce Carbon monoxide or Carbon dioxide

11. TOXICOLOGICAL INFORMATION

- Eye: Frostbite can result from exposure to Liquid while gas may cause irritation.
- Skin: Contact with the Skin may cause frostbites
- Inhaled: Asphyxiation may occur if personnel exposed to high concentration of gas
Early indications of asphyxiation are Drowsiness, headaches, dizziness & feeling of weakness & shortness of breath.

12. ECOLOGICAL INFORMATION

Will vaporize rapidly when released in atmosphere, Anesthetic to animals & insets at high Concentration, Not expected to pose hazards to aquatic life.
Not inhibitory to plant growth at normal concentration, Bioaccumulation is not expected

13. DISPOSAL CONSIDERATIONS

Waste disposal should be undertaken in one of the following ways

- 1. Return empty Container to supplier
- 2. Dispose of empty Container once these are free of gas however seek guidance of local bodies if any rules & regulations need to be followed.

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14. TRANSPORT INFORMATION

Class 2 - Extremely Flammable - Propane/Butane liquefied
UN 3478
Required Labels: Flammable Gas
Hazchem: 2 WE

15. REGULATORY INFORMATION

Read safety instructions before use
Container is under pressure
Keep away from temperatures above 50 C
Use only outside or well-ventilated area
Throw away at designated area as specified by local bodies
Keep out of reach of children
Do not damage, puncture or burn even after use
Do keep these aerosols in well-ventilated area
Do not breathe gas.
Above all follow the rules & regulations of the local/state laws for usage & disposal

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