

# SAFETY DATA SHEET

According to Safe Work Australia

Printing date 12.07.2016

Revision: 01.07.2019

## 1 . IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

**Product Name:** BUTANE GAS CANISTER P/N 2200 (220G)

**Other Means of Identification:** Mixture

**Other Name:** Gas Torch Kit P/N 212045 (uses 2200).

**Recommended Use of the Chemical and Restriction on Use:** Fuel, commercial and industrial applications.

**Details of Manufacturer or Importer:**

Adventure Operations Australia Pty Ltd

15-19 Reid Way

Tullamarine VIC 3043

**Phone Number:** 1300 555 197

**Emergency telephone number:** National Poison Information Centre: 13 11 26

## 2 . HAZARDS IDENTIFICATION

**Hazardous Nature:**

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition).



flame

Flam. Gas 1 H220 Extremely flammable gas.



gas cylinder

Press. Gas L H280 Contains gas under pressure; may explode if heated.

**Signal Word** Danger

**Hazard Statements**

H220 Extremely flammable gas.

H280 Contains gas under pressure; may explode if heated.

**Precautionary Statements**

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.






P410+P403 Protect from sunlight. Store in a well-ventilated place.

## 3 . COMPOSITION AND INFORMATION ON INGREDIENTS

**Chemical Characterization: Mixtures**

**Description:** Mixture of substances listed below with nonhazardous additions.

**Hazardous Components:**

106-97-8	Butane	 Flam. Gas 1, H220;  Press. Gas C, H280	60%
75-28-5	Propane, 2-methyl-	 Flam. Gas 1, H220;  Press. Gas C, H280	36%
74-98-6	Propane	 Flam. Gas 1, H220;  Press. Gas C, H280	2%

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### 4 . FIRST AID MEASURES

**Inhalation:**

In high concentrations may cause asphyxiation. Symptoms may include loss of mobility and consciousness. Victim may not be aware of asphyxiation. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

**Skin Contact:**

Contact with evaporating liquid may cause frostbite or freezing of skin. Thaw frosted parts with lukewarm water. Do not rub affected area. Do not use hot water. Cryogenic (low temperature) burns which result in blistering or deeper tissue freezing should be promptly treated by a physician.

**Eye Contact:**

In case of eye contact, rinse cautiously with water or saline solution for several minutes until no chemical remains. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.

**Ingestion:**

Ingestion is not considered a potential route of exposure. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.

**Symptoms Caused by Exposure:**

Inhalation: May affect central nervous system and cause headache, dullness, difficulty in breathing, drowsiness, and losing consciousness. In high concentrations may cause asphyxiation. Symptoms may include loss of mobility and consciousness. Victim may not be aware of asphyxiation.

Skin Contact: Contact with evaporating liquid may cause frostbite or freezing of skin, blistering and paralysis.

Eye Contact: May cause frostbite or problem with vision.

Ingestion: Gas ingestion is not likely to occur. However, may cause frostbite on the lips, mouth, and membrane if liquid is swallowed.

### 5 . FIRE FIGHTING MEASURES

**Suitable Extinguishing Media:** Carbon dioxide, powder, water spray and water fog.

**Specific Hazards Arising from the Chemical:**

Flammable gas. Vapours are heavier than air and may travel along the ground and collect in low or confined areas and be exposed to a source of ignition (pilot light, heater, electric motor) some distance away and backfire. Containers may burst or explode if exposed to heat or spark. Low electrical conduction may cause static electricity, and be ignited by a spark.

Shut off gas source and allow the fire to burn itself out. Gas fires should not be extinguished unless the gas flow can be stopped immediately. If gas source cannot be shut off immediately, fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool container with flooding quantities of water until well after fire is out to prevent container from exploding.

**Special Protective Equipment and Precautions for Fire Fighters:**

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

### 6 . ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures:**

Wear approved self-contained breathing apparatus and full protective clothing. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation, ventilate the closed place before entering. Extinguish all sources of ignition. Avoid sparks and open flames. No smoking.

**Environmental Precautions:**

In the event of a major spill, prevent spillage from entering drains or water courses.

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**Methods and Materials for Containment and Cleaning Up:**

Eliminate all sources of ignition and stop leak if safe to do so. Secure the cylinder and slowly discharge the gas to the atmosphere in a well-ventilated area or outdoors. Vapour can be dispersed with sustained water spray. Use only non-sparking tools.

## 7. HANDLING AND STORAGE

**Precautions for Safe Handling:**

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours or gas. Use in a well-ventilated area since use in the airtight place may cause explosion and suffocation. Take precautionary measures against static discharge.

Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

**Conditions for Safe Storage:**

Store in a cool, dry and well ventilated area. Protect from direct sunlight, heat, sparks, open flames and hot surfaces. Do not expose to temperatures exceeding 40 °C. Close container valve after each use and when empty, even if still connected to equipment. Ground / bond container and receiving equipment. Take precautionary measures against static discharge. Keep away from strong oxidisers, nitric acid, chlorine dioxide, carbonyl nickel and acid. Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use. Damaged valves should be reported immediately to the supplier

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Exposure Standards:****106-97-8 Butane**NES | TWA: 1900 mg/m<sup>3</sup>, 800 ppm**68476-85-7 Petroleum gases, liquefied**NES | TWA: 1800 mg/m<sup>3</sup>, 1000 ppm**Engineering Controls:**

Local exhaust and general ventilation are necessary in work area to prevent accumulation of explosive mixtures. Provide special ventilation in sumps and confined spaces. Use explosion-proof ventilating equipment. Gas detectors should be used when quantities of flammable gases or vapours may be released

**Respiratory Protection:**

Use approved full face supplied air respirator if high airborne concentrations of the material are present. See Australian Standards AS/NZS 1715 and 1716 for more information.

**Skin Protection:**

Leather, wool or aramid blend gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information.

Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

**Eye and Face Protection:**

Eye and face protectors for protection against gas. See Australian/New Zealand Standard AS/NZS 1337.

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## 9 . PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	
<b>Form:</b>	Liquid and vapour
<b>Colour:</b>	Colourless
<b>Odour:</b>	Occasionally smells like rotten garlic, otherwise odourless.
<b>Odour Threshold:</b>	No information available
<b>pH-Value:</b>	Not applicable
<b>Melting point/Melting range:</b>	-138.3 °C (N-Butane) -160 °C (Iso-Butane) -187.7 °C (Propane)
<b>Initial Boiling Point/Boiling Range:</b>	-0.5 °C (N-Butane) -11.5 °C (Iso-Butane) -42.1 °C (Propane)
<b>Flash Point:</b>	-73.3 °C (N-Butane) -88.0 °C (Iso-Butane) -104.4 °C (Propane)
<b>Flammability:</b>	Extremely flammable
<b>Auto-ignition Temperature:</b>	287 °C (N-Butane) 460 °C (Iso-Butane) 466.1 °C (Propane)
<b>Decomposition Temperature:</b>	No information available
<b>Explosion Limits:</b>	
<b>Lower:</b>	1.9 Vol % (N-Butane) 1.8 Vol % (Iso-Butane) 2.2 Vol % (Propane)
<b>Upper:</b>	8.4 Vol % (N-Butane) 8.4 Vol % (Iso-Butane) 9.5 Vol % (Propane)
<b>Vapour Pressure:</b>	0.214MPa @21.1 °C (N-Butane) 0.304MPa @20 °C (Iso-Butane) 0.75MPa @20 °C (Propane)
<b>Density:</b>	Not determined.
<b>Relative Density:</b>	0.549 (water = 1) @20 °C (N-Butane) 0.549 (water = 1) @20 °C (Iso-Butane) 0.501 (water = 1) @20 °C (Propane)
<b>Vapour Density:</b>	2.1 (air = 1) @20 °C (N-Butane) 2.595 (air = 1) @20 °C (Iso-Butane) 1.55 (air = 1) @20 °C (Propane)
<b>Evaporation Rate:</b>	100 %
<b>Solubility in Water:</b>	3.25ml/100ml@20 °C (N-Butane) 0.007g/100ml@20 °C (Propane)
<b>Partition Coefficient (n-octanol/water):</b>	2.89 as log POW (N-Butane) 2.8 as log POW (Iso-Butane) 2.36 as log POW (Propane)
<b>Viscosity:</b>	No information available
<b>VOC:</b>	No information available

## 10 . STABILITY AND REACTIVITY

**Possibility of Hazardous Reactions:**

Can form a potentially explosive atmosphere in air. May react violently with oxidants.

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**Chemical Stability:** Stable at a normal temperature and pressure.**Conditions to Avoid:** Heat, sparks, open flames, hot surfaces, direct sunlight and temperature above 40°C.**Incompatible Materials:** Strong oxidisers, nitric acid, chlorine dioxide, carbonyl nickel and acid.**Hazardous Decomposition Products:** Oxides of carbon.

## 11 . TOXICOLOGICAL INFORMATION

**Toxicity:****LD<sub>50</sub>/LC<sub>50</sub> Values Relevant for Classification:****106-97-8 Butane**Inhalation | LC<sub>50</sub>/4 h | 658 mg/l (rat)**74-98-6 Propane**Inhalation | LC<sub>50</sub>/4 h | 658 mg/l (rat)**Acute Health Effects****Inhalation:**

Simple asphyxiant. May affect central nervous system and cause headache, dullness, difficulty in breathing, drowsiness, and losing consciousness. In high concentrations may cause asphyxiation. Symptoms may include loss of mobility and consciousness. Victim may not be aware of asphyxiation. 19,000ppm concentration may cause immediate danger to life or health.

**Skin:** Contact with liquid may cause frostbite and blistering.**Eye:** Contact with liquid may cause frostbite and loss of eyesight.**Ingestion:**

Gas ingestion is not likely to occur. However, may cause frostbite on the lips, mouth, and membrane if liquid is swallowed.

**Skin Corrosion / Irritation:** Based on classification principles, the classification criteria are not met.**Serious Eye Damage / Irritation:** Based on classification principles, the classification criteria are not met.**Respiratory or Skin Sensitisation:** Based on classification principles, the classification criteria are not met.**Germ Cell Mutagenicity:** Based on classification principles, the classification criteria are not met.**Carcinogenicity:** This product does NOT contain any IARC listed chemicals.**Reproductive Toxicity:** Based on classification principles, the classification criteria are not met.**Specific Target Organ Toxicity (STOT) - Single Exposure:**

Based on classification principles, the classification criteria are not met.

**Specific Target Organ Toxicity (STOT) - Repeated Exposure:**

Based on classification principles, the classification criteria are not met.

**Aspiration Hazard:** Based on classification principles, the classification criteria are not met.**Chronic Health Effects:** May cause the same symptoms as acute exposure.**Existing Conditions Aggravated by Exposure:** No information available

## 12 . ECOLOGICAL INFORMATION

**Ecotoxicity:** No information available**Aquatic toxicity:** No information available**Persistence and Degradability:** No information available

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**Bioaccumulative Potential:** No information available**Mobility in Soil:** No information available

## 13 . DISPOSAL CONSIDERATIONS

**Disposal Methods and Containers:** Dispose according to applicable local and state government regulations.**Special Precautions for Landfill or Incineration:**

Please consult your state Land Waste Management Authority for more information.

## 14 . TRANSPORT INFORMATION

<b>UN Number</b> ADG, IMDG, IATA	UN2037
<b>Proper Shipping Name</b> ADG, IMDG, IATA	RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES) without a release device, non-refillable
<b>Dangerous Goods Class</b> ADG Class:	2.1
<b>Packing Group:</b> ADG, IMDG IATA	Not applicable Passanger and Cargo Aircraft - Packaging Instructions Y203 - Max.Net Qty/Pkg 1 kg Cargo Aircraft Only - Packaging Instructions 203 - Max.Net Qty/Pkg 15 kg
<b>Hazchem Code:</b>	2T
<b>Special Provisions:</b>	191, 277, 303
<b>Limited Quantities:</b>	1L
<b>Packagings &amp; IBCs - Packing Instruction:</b>	P003
<b>Packagings &amp; IBCs - Special Packing Provisions:</b>	PP17

## 15 . REGULATORY INFORMATION

### Australian Inventory of Chemical Substances:

106-97-8	Butane
75-28-5	Propane, 2-methyl-
74-98-6	Propane

### Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:

Not Scheduled.

## 16 . OTHER INFORMATION

**Date of Preparation or Last Revision:** 01.07.2019**Prepared by:** MSDS.COM.AU Pty Ltd

www.msds.com.au

### Abbreviations and acronyms:

ADG: Australian Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

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VOC: Volatile Organic Compounds

LC<sub>50</sub>: Lethal concentration, 50 percentLD<sub>50</sub>: Lethal dose, 50 percent

IARC: International Agency for Research on Cancer

STEL: Short Term Exposure Limit

TWA: Time Weighted Average

NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

Flam. Gas 1: Flammable gases, Hazard Category 1

Press. Gas C: Gases under pressure: Compressed gas

Press. Gas L: Gases under pressure: Liquefied gas

**Disclaimer**

This SDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - December 2011"

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