

Safety Data Sheet according to WHS Regulations

Printing date 21.02.2017 Revision: 21.02.2017

1 Identification

Product Name: BUTANE GAS CARTRIDGE
Other Means of Identification: Mixture

Product Code: 2200TSV

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

Details of Manufacturer or Importer:

Primus Australia Pty Ltd 3/20 Enterprise Drive Bundoora VIC 3083

Phone Number: 03 9468 4400

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

2 Hazard(s) 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).



Flammable Gases 1 H220 Extremely flammable gas.

Signal Word Danger

Hazard Statements

H220 Extremely flammable gas.

Precautionary Statements

P210 Keep away from heat/sparks/open flames/hot surfaces. 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 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	60%
	♦ Flammable Gases 1, H220; ♦ Gases Under Pressure (Compressed gas), H280	
	Propane, 2-methyl-	37%
	♦ Flammable Gases 1, H220; ♦ Gases Under Pressure (Compressed gas), H280	
	Propane	3%
	♦ Flammable Gases 1, H220; ♦ Gases Under Pressure (Compressed gas), H280	

4 First Aid Measures

Inhalation:

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.

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Skin Contact:

In case of skin contact, immediately remove contaminated clothing. Cold burns should be flushed with warm (41°C) water. Seek immediate medical attention.

Eye Contact:

In case of eye contact, hold eyelids open and rinse with water for at least 15 minutes. Seek medical attention if symptoms occur.

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: Simple asphyxiant. Inhalation may lead to unconsciousness and death.

Inhalation may cause irritation to the nose and throat, nausea, vomiting, dizziness and drowsiness.

Abuse involving inhalation of high concentrations of vapour can cause unconsciousness and may prove fatal.

Skin: Contact with liquid may cause cold burns.

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.

5 Fire Fighting Measures

Suitable Extinguishing Media:

Do not extinguish fires due to the risk of explosive reignition. Shut off the source of fuel and allow fire to burn out. Small residual fires can be extinguished with dry chemical or carbon dioxide.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon, nitrogen and sulphur and reactive hydrocarbons. 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.

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.

Methods and Materials for Containment and Cleaning Up:

Eliminate all sources of ignition and stop leak if safe to do so. In case of a leak or of an emergency disposal, 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 a use in the airtight place may cause explosion and suffocation. Use with a partial ventilation or general diluted ventilation equipment. Take precautionary measures against static discharge. After use, separate the product in order to avoid an explosion by radiant heat.

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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 heat, sparks, open flames, hot surfaces and direct sunlight. Do not expose to temperatures exceeding 40 °C.Take precautionary measures against static discharge. Do not weld, cut or drill on full or empty containers. Keep away from strong oxidisers. Do not store in confined spaces or low-level spaces where gas can accumulate.

8 Exposure controls and personal protection

o Exposure controls and personal protection		
Exposure Standards:		
106-97-8 Butane		
WES TWA: 1900 mg/m³, 800 ppm		
74-98-6 Propane		
WES Asphyxiant		

Engineering Controls:

Maintain air concentration below occupational exposure standards, providing adequate ventilation. Use explosion-proof ventilating equipment.

Respiratory Protection:

Use an approved vapour respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:

Petroleum resistant gloves are recommended. See Australian/New Zealand Standard AS/NZS 2161 for more information. When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.

Insulated gloves are required if contact with cold product or equipment is expected.

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.

Eve and Face Protection:

Eye and face protectors for protection against splashing materials or liquids. See Australian/New Zealand Standard AS/NZS 1337.

9 Physical and Chemical Properties

Appearance:

Form: Liquid and vapour Colour: Colourless Odour: Odourless

Odour Threshold: No information available

pH-Value: Not applicable

Melting point/freezing point: -159.6 °C (Iso-butane)
Initial Boiling Point/Boiling Range: -42.1 °C (Propane)

Flash Point: 404 °C

Flammability: Extremely flammable

Ignition Temperature -60 °C.

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Auto-ignition Temperature: No information available Decomposition Temperature: No information available

Explosion Limits:

Lower: 1.8 % Upper: 9.5 %

Vapour Pressure at 20 °C:853 kPa (Propane)Density:0.5005 kg/L (Propane)0.551 kg/L (Iso-butane)

0.5788 kg/L (Butane)

Vapour Density: 1.55 (air = 1) @20 °C (Propane)

2.064 (air = 1) @20 °C (Iso-Butane) 2.11 (air = 1) @20 °C (Butane)

Evaporation Rate:

Solubility in Water:

Partition Coefficient (n-octanol/water):

Viscosity:

No information available

10 Stability and Reactivity

Possibility of Hazardous Reactions: Hazardous polymerisation will not occur.

Chemical Stability: Stable at a normal temperature and pressure.

Conditions to Avoid: Heat, sparks, open flames, hot surfaces and direct sunlight.

Incompatible Materials: Strong oxidisers.

Hazardous Decomposition Products: Oxides of carbon, nitrogen and sulphur and reactive hydrocarbons.

11 Toxicological Information

Toxicity:

LD₅₀/LC₅₀ Values Relevant for Classification:

106-97-8 Butane

Inhalation LC₅₀/4 h 658 mg/l (rat)

74-98-6 Propane

Inhalation LC₅₀/4 h 658 mg/l (rat)

Acute Health Effects

Inhalation:

Simple asphyxiant. Inhalation may lead to unconsciousness and death.

Inhalation may cause irritation to the nose and throat, nausea, vomiting, dizziness and drowsiness.

Abuse involving inhalation of high concentrations of vapour can cause unconsciousness and may prove fatal.

Skin: Contact with liquid may cause cold burns.

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.

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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: No information available

Existing Conditions Aggravated by Exposure: No information available

12 Ecological Information

Ecotoxicity: No further relevant information available.

Aquatic toxicity: No further relevant information available.

Persistence and Degradability: No further relevant information available.

Bioaccumulative Potential: No further relevant information available.

Mobility in Soil: No further relevant information available.

Other adverse effects: No further relevant 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

UN Number

ADG, IMDG, IATA UN2037

Proper Shipping Name

ADG, IMDG, IATA RECEPTACLES, SMALL, CONTAINING GAS (GAS

CARTRIDGES)

Dangerous Goods Class

ADG Class: 2.1

Packing Group: Not applicable

EMS Number: F-D,S-U

Hazchem Code: Not applicable

Special Provisions: 191, 277, 303, 344

Limited Quantities: 1 L

Packagings & IBCs - Packing Instruction: P003

Packagings & IBCs - Special Packing Provisions: PP17

Portable Tanks & Bulk Containers - Instructions: Not applicable

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Portable Tanks & Bulk Containers - Special

Provisions: Not applicable

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: 21.02.2017

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)

VOC: Volatile Organic Compounds LC₅₀. Lethal concentration, 50 percent

LD₅₀: 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)

Flammable Gases 1: Flammable gases - Category 1

Gases Under Pressure (Compressed gas): Gases under pressure – Compressed 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 - February 2016"

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