Safety Data Sheet
according to WHS Regulations

Printing date 24.05.2017 Revision: 24.05.2017

1 Identification

Product Name: HANDY CAN

Other Means of Identification: Mixture

Product Code: HC215

Recommended Use of the Chemical and Restriction on Use: Recharging gas burners

Details of Manufacturer or Importer:
Australian Dental Manufacturing
25 Billabong Street
Kenmore Hills QLD 4069

Phone Number: 07 3878 1901

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

2 Hazard(s) Identification

Hazardous Nature:
Not 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

Flammable Gases 1 H220 Extremely flammable gas.


gas cylinder

Gases Under Pressure (Liquefied gas) 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/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.
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:		
74-98-6	Propane Flammable Gases 1, H220; Gases Under Pressure (Compressed gas), H280	>70%
115-07-1	1-Propene Flammable Gases 1, H220; Gases Under Pressure (Compressed gas), H280	<30%

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106-97-8	Butane Flammable Gases 1, H220; Gases Under Pressure (Compressed gas), H280	<2.5%
74-84-0	Ethane Flammable Gases 1, H220; Gases Under Pressure (Compressed gas), H280	<2%
75-08-1	Ethanethiol Flammable Liquids 2, H225; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Toxicity (Inhalation) 4, H332	0.1%

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.

Skin Contact:
In case of skin contact, immediately remove contaminated clothing. Frozen tissue should be flushed with plenty of warm water. 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 for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Liquid can cause burns similar to frostbite. Seek immediate medical attention.

Ingestion:
Ingestion is not considered a potential route of exposure. Liquid can cause burns similar to frostbite. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:
Inhalation: Asphyxiant gas. At very high concentrations can displace the normal air and cause suffocation from lack of oxygen. Symptoms of lack of oxygen include increase depth and frequency of breathing, dizziness, headache, nausea or loss of consciousness.
Skin Contact: Liquid can cause burns similar to frostbite. Cryogenic burns may cause blistering or deeper tissue freezing.
Eye Contact: Liquid can cause burns similar to frostbite.
Ingestion: Liquid can cause burns similar to frostbite.

5 Fire Fighting Measures

Suitable Extinguishing Media:
For small fires use dry chemical or carbon dioxide. For large fires use water spray or fog.

Specific Hazards Arising from the Chemical:
Hazardous decomposition products include carbon oxides.
Extremely flammable gas. Mixed with air can produce an explosive mixture if in contact with a source of ignition. Violent chemical reaction may happen in contact with oxidisers. 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.
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. Always stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles. If this is impossible, withdraw from area and let fire burn.

Special Protective Equipment and Precautions for Fire Fighters:
When fighting a major fire wear self-contained breathing apparatus and protective equipment.

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6 Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:
Wear approved respiratory protection, chemical resistant gloves, protective clothing and safety boots. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation. 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. Use only in a well-ventilated area. 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. Cylinders should also be segregated from oxidizers such as oxygen and chlorine, away from areas of heavy traffic and emergency exits. Keep away from strong acids and alkalis. Valve caps should remain on cylinders. The most common hazard is leakage due to faulty pressure control regulators. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment.

8 Exposure controls and personal protection

Exposure Standards:	
74-98-6 Propane	
WES	Asphyxiant
115-07-1 1-Propene	
WES	Asphyxiant
106-97-8 Butane	
WES	TWA: 1900 mg/m³, 800 ppm
74-84-0 Ethane	
WES	Asphyxiant
75-08-1 Ethanethiol	
WES	TWA: 1.3 mg/m³, 0.5 ppm

Engineering Controls:
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapour below occupational exposure standards. Provide special ventilation in sumps and confined spaces. Use explosion-proof ventilating equipment.

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.

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Skin Protection:
Leather/pigskin, neoprene or nitrile gloves. 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.
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 for more information.

9 Physical and Chemical Properties

Appearance:	
Form:	Compressed gas
Colour:	Colourless
Odour:	Strong distinctive sulphurous odourant added to assist with early detection
Odour Threshold:	Not determined.
Melting point/freezing point:	-189.7 °C (propane)
Initial Boiling Point/Boiling Range:	-42.1 °C (propane)
Flash Point:	-104 °C
Flammability:	Extremely flammable
Auto-ignition Temperature:	450-549 °C
Decomposition Temperature:	Not determined.
Explosion Limits:	
Lower:	2.2 Vol %
Upper:	9.6 Vol %
Vapour Pressure at 20 °C:	1200 kPa
Density:	Not determined.
Relative Density:	Not determined.
Vapour Density:	Not determined.
Evaporation Rate:	Not applicable
Solubility in Water:	Insoluble
Solubility in Solvents:	Soluble

10 Stability and Reactivity

Possibility of Hazardous Reactions: Hazardous polymerisation will not occur.

Chemical Stability: Stable at ambient temperature and under normal conditions of use.

Conditions to Avoid: Heat, sparks, open flames and other sources of ignition.

Incompatible Materials: Strong acids, alkalis and oxidisers such as chlorine (gas or liquid) and oxygen.

Hazardous Decomposition Products: Oxides of carbon.

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11 Toxicological Information

Toxicity:

LD_{50}/LC_{50} Values Relevant for Classification:		
74-98-6 Propane		
Inhalation	LC_{50}/4 h	658 mg/l (rat)
106-97-8 Butane		
Inhalation	LC_{50}/4 h	658 mg/l (rat)
75-08-1 Ethanethiol		
Oral	LD_{50}	682 mg/kg (rat)
Inhalation	LC_{50}/4 h	4420 mg/l (rat)

Acute Health Effects
Inhalation:
Asphyxiant gas. At very high concentrations can displace the normal air and cause suffocation from lack of oxygen. Symptoms of lack of oxygen include increase depth and frequency of breathing, dizziness, headache, nausea or loss of consciousness.
Skin:
Liquid can cause burns similar to frostbite. Cryogenic burns may cause blistering or deeper tissue freezing.
Eye: Liquid can cause burns similar to frostbite.
Ingestion: Liquid can cause burns similar to frostbite.

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:
Propylene is classified by IARC as Group 3 - Not classifiable as to its carcinogenicity to humans.

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:
Persons with significant pre-existing heart, lung, or blood diseases may have increased susceptibility to symptoms of asphyxia.

12 Ecological Information

Ecotoxicity: No information available

Aquatic toxicity: No information available

Persistence and Degradability: No information available

Bioaccumulative Potential: No information available

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Mobility in Soil: No information available
Other adverse effects: 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

UN Number
ADG, IMDG, IATA UN2037

Proper Shipping Name
ADG, IMDG, IATA RECEPTACLES, SMALL, CONTAINING GAS (GAS CARTRIDGES) without a release device, non-refillable

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: 1L

Packagings & IBCs - Packing Instruction: P003

Packagings & IBCs - Special Packing Provisions: PP17

15 Regulatory information

Australian Inventory of Chemical Substances:

74-98-6	Propane
115-07-1	1-Propene
106-97-8	Butane
74-84-0	Ethane
75-08-1	Ethanethiol

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:
Not Scheduled.

16 Other information

Date of Preparation or Last Revision: 24.05.2017

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)
LC_{50}: Lethal concentration, 50 percent
LD_{50}: Lethal dose, 50 percent

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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
Gases Under Pressure (Liquefied gas): Gases under pressure – Liquefied gas
Flammable Liquids 2: Flammable liquids – Category 2
Acute Toxicity (Inhalation) 4: Acute toxicity – Category 4
Aquatic Acute 1: Hazardous to the aquatic environment, short-term (Acute). Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment, long-term (Chronic). Category 1

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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